A CompuServe Publication June, 1985 $2.50

# Online TODAY

THE COMPUTER COMMUNICATIONS MAGAZINE

## Collaboration: Online Computer Users' Groups

## Software Support Forums

## Quick & Reilly Brokerage Service

From your fingerprint to your monogram, you are unique.
You wear a business suit tailored just for you; now you can get business news tailored just for you.
With NewsNet you get vital, in-depth business news. You get expert information on your industry or profession. Through your computer and telephone, you get news on a vast range of subjects from the world's largest retrieval service of business newsletter information.

## 3,000 New Articles Screened Each Day

You'll get access to more than 250 business newsletters, plus wire services like UPI and PR Newswire. There's news on everything from computers to investments, from taxes to telecommunications. 3000 new articles are added every day and each one is screened specially for you.

## Fast, Versatile, Simple

You enter key words, names or phrases. NewsNet stores them and saves every article containing those words. Check in daily, even hourly; scan the headlines or read entire articles, and print out what you want to keep. Change key words when you like. You're free from the worry that you've missed something important—and your topics may turn up in publications you'd never have time to read. If you're onto a new topic, the entire NewsNet database is available for your search. Get special reports on your competition, the inside story on an industry, or press coverage of a company's new product.

## Start Saving Now

The average newsletter carried by NewsNet costs $200 per year in print form. That's $50,000 worth of newsletters. Yet with NewsNet you pay as little as $15 per month for access. And NewsNet has no initiation fee. It's a tremendous value. So call today. We'll send everything you need to start saving now.

Welcome to **NewsNet**

Your Custom News Report is Ready

**800-345-1301**

(In PA 215-527-8030)

945 Haverford Rd. Bryn Mawr, PA 19010

Circle 1 on the Reader Service card or GO EBB
For details on NewsNet in the electronic mall GO NN

compustore On Line

Catalogue

Sharp
RCA
Zenith
Sanyo

Sony
Aiwa
Sanyo
TEAC

Auction

Orrefors
Gorham
Waterford
Denby

Seiko
Pulsar
Concord
Citizen

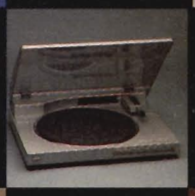
Sweep-stakes

Whirlpool
GE
Caloric
Jenn-Air

Members only Action! Excitement!

Nikon
Canon
Minolta
Olympus

You're in for Big Gifts!



Panasonic
RCA
JVC
Hitachi

Quasar
RCA
G.E.
Sony

Lark
Samsonite
Ventura
American Tourister

Akai
Sony
JVC
Technics

Singer
Elna

Panasonic
Pioneer
Aiwa
Sanyo

For even Bigger Savings!

Comp-U-Bucks

IBM
Commodore
TI
DEC

Chrysler
Ford
GM

# Save up to 50% on 60,000 name-brand products.

With your personal computer and Compu-Serve, you can shop Comp-u-store OnLine's electronic catalogue of more than 60,000 name-brand products. Save $297 on a Sanyo VCR, $163 on a JVC 19-inch color TV, and $247 on a Singer sewing machine*. And that's only the beginning.

You can become a member of Comp-u-store OnLine directly by typing GO CUS at the command level and then choosing the sign-up option. Or you can call toll-free, 1-800-843-7777.

Shop on-line from the specialty shops in Comp-u-mall — Omaha Steaks, Hickory Farms and many more! You'll also be eligible for sweep-stakes and scavenger hunts.

You get it all for an annual membership fee of just $25, which we'll refund in full if you're ever dissatisfied. Sign up before March 31 and you'll receive 750 Comp-u-bucks!

*As of December 1984, compared to manufacturer's suggested list price.

compustore On Line

Circle 2 on the Reader Service card or GO EBB.

Cermetek 1200 MODEM

FULLY HAYES COMPATIBLE

Suggested retail price
~~$595.~~
SPECIAL!
$399.

**FEATURES:**

- 110/300/1200 bps Full Duplex Operation
- Bell 212A and 103 Compatible
- Auto-dial, Auto-answer
- SMARTMODEM 1200 Compatible
- Auto-speed, Auto Parity Selection
- Speaker for audible Call Progress monitoring
- FCC Part 68 and Part 15 Registered
- RS-232C Terminal or Computer Interface

**EXTENDED FEATURES:**

- Touch Tone or Rotary Pulse Dialing, Auto-selected
- Electronic Call Progress Tone Detection (Dial, Busy, Ring-back, Modem answer Tone, and Voice)
- Asynchronous or Synchronous Operation
- Built-in telephone line test diagnostics
- Front panel Voice/Data buttons
- Coupons worth over $100.00 towards the purchase of Crosstalk communications software and other data base services included

SECURITY MODEMS AVAILABLE NOW $499.

NEW! 2400 BAUD MODEMS
CALL FOR INFORMATION

BT ENTERPRISES

B. T. Enterprises DEPT. 14F
10 Carlough Road
Bohemia, N.Y. 11716-2996
Prices subject to change
N.Y.S. Residents add tax
Add $4.00 shipping & handling
MAJOR CREDIT CARDS ACCEPTED

(516) 567-8155 (voice)
(516) 588-5836 (modem)
4993713/Bi-Tech (Telex)
70007 1767 (MicroNET)
Orders Only 800-645-1165

Dealer Inquiries Welcome

B.T. Enterprises is a division of Bi-Tech Enterprises Inc

Circle 3 on the Reader Service card or GO EBB.



*Find the right word*

# THE WORD FINDER
(Synonym Finder)

A Thesaurus for WordStar

Multimate, Word Perfect
Microsoft Word, Pfs-Write
WS 2000, IBM Writing Ass't.

**Improve your writing** by finding the *perfect* word. Put your cursor on a word and call up a list of words with similar meaning, from right inside your word processor! Pick one, and voila, your new word replaces your old word. It's so fast and easy you'll use it all the time. Works with WordStar (3.0, 3.3, 2000), Multimate, Word Perfect, MS Word, IBM Writing Ass't., and Pfs-Write. Specify word proc., computer, and operating system (MS/PC DOS or CP/M 80). New database has ⅓ more words than Random House and uses ⅓ less disk space. Easy to install and operate. Highly rated by dozens of reviewers and users groups. Special introductory offer, only **$79.95!** (Regularly $124.95). Add $2.50 shipping and NYS residents add sales tax.

Okay! My check is enclosed for $_____ (or charge my VISA/MC acct. # _____ _____ expires _____/_____).

**Writing Consultants**
Suite 361, 11 Creek Bend Drive – Fairport, NY 14450
Orders only: 800-828-6293 Info: 716-377-0130
dealers and distributors please call or write

Circle 4 on the Reader Service card or GO EBB.


CompuServe Page EBB-1
Welcome to Electronic Bounce Back, (EBB). To request information about products and services found in Online Today, proceed to the next page and choose menu item 4 for display ads, 5 for hardware-software and 6 for new product announcements. Requests will be forwarded electronically; responses may be received via Email or traditional mail.

## Guidelines to Requesting Product Information With EBB

**Electronic Bounce Back** Electronic Bounce Back (EBB) is *Online Today*'s electronic version of the traditional reader inquiry card. To request additional information about products or services described in *Online Today*, simply access CompuServe and GO EBB.

After a page of instructional information the following menu will appear:

Online Today Page OLT-4
ONLINE TODAY MAGAZINE
1. Welcome to Online Today
2. Monitor
3. Letters to the Editor
4. Online Today Advertisers *EBB*
5. Product Reviews *EBB*
6. Industry Watch *EBB*
7. Shopper's Guide
8. Electronic Update

A selection of 4, 5 or 6 will be followed by a menu listing of display advertisers, or products and services featured in the editorial section of *Online Today*.

**Display Ads**, GO EBB-1. Inquiries to this section will be followed by a brief description of the *Online Today* ad. To request additional printed information, simply enter your name and address at prompts.* EBB will add your User ID and electronically forward your request to the appropriate advertiser(s). Inquirer names, addresses and ID numbers will also be forwarded via U.S. Mail at the end of each month.

CompuServe Page EBB-20
ONLINE TODAY ADVERTISERS
NOVEMBER ISSUE 1984
1. Online Today Magazine
2. NewsNet (inside cover)
3. Crosstalk, p.5
4. B.T. Enterprises, p.6
5. Investment Technologies, p.6
6. General DataComm, pp.18-19
7. Official Airline Guides, p.20

**Editorial Articles/Reviews** Choose *Online Today* magazine menu items 5 or 6. Requests to these sections will be stored and forwarded by traditional mail once each month.

**Shopper's Guide**, GO EBB-70. This is *Online Today*'s classified section and is designed to enable readers to easily scan areas of interest.

To request information from Shopper's Guide advertisers send CompuServe Email or use traditional methods of communication.

CompuServe Page EBB-70
SHOPPER'S GUIDE
1. About Shopper's Guide
2. Rates and Information
3. Software
4. Services
5. Accessory
6. Retailers

**Note: Additional requests during the same session will not require you to re-enter your name and address.*

*Online Today* readers have an electrifying new reader service system that links them *directly* to *Online Today* advertisers. It's called Electronic BounceBack (EBB) and it's the world's first electronic two-way reader service system.

## *It's Shockingly Simple!*

If you are a CompuServe Consumer Information Service subscriber,* simply enter the GO EBB command at any prompt. Then, just follow the EBB prompts to post messages requesting specific information about the product you've seen in an ad, review or product announcement.

Want to know more about warranties, product availability or specifications? With EBB it's easy. What's more, the advertiser can reply to your inquiries *immediately* via electronic mail. You get all the information you need to make a smart purchase decision straight from the seller!

So give EBB a try and see how easy it is to plug into our advertisers. It might change the way you think about reader service systems!

Online TODAY
THE COMPUTER COMMUNICATIONS MAGAZINE

*If you are not a CompuServe Consumer Information Service subscriber you can obtain free information from advertisers by using our reader service card in the back of the magazine.

Online TODAY
THE COMPUTER COMMUNICATIONS MAGAZINE

**FEATURE**

**14** **The Online Answer: Computer-Specific Forums**
*In online forums, computer users trade technical tips, software programs, computer product recommendations and information on locating equipment for obsolete computers.*

**COMPUSERVE UPDATE**

**21** **Online Support for Software Users**
*Labeled as innovative, cost-effective and convenient, online support is becoming a means of interaction for software companies and end-users.*

**25** **PRLink Offers Networking**
*Public relations professionals communicate with colleagues nationwide through PRlink, sponsored by the Public Relations Society of America.*

**26** **Quick & Reilly Brokerage Opens Online**
*An integrated order entry, quotation and record-keeping system is now available on CompuServe through Quick and Reilly, the nation's third largest discount brokerage firm.*

**REVIEWS**

**34** **Hardware**
The Compaq Deskpro *desktop computer from Compaq Computer Corp.*

**36** **Software**
Open Access *integrated software from Software Products International*
WordVision *Writing Tool from Bruce & James Program Publishers Inc.*
Research *economic database manager from Economic Software Inc.*

**42** **Books**
Get Connected: A Guide to Telecommunications — *Ashton Tate*
Microcomputer User's Guide to Information Online — *Hayden Book Co.*
Joys of Computer Networking — *McGraw-Hill*
Illustrated Guide to the Commodore 64 — *Prentice-Hall*

**DEPARTMENTS**

**5** **Dear Reader**

**6** **Letters**

**8** **Monitor**

**12** **Beginner's Corner** *With Alex Krislov*

**20** **Computing Across America** *With Steven K. Roberts*

**24** **Inside the Electronic Mall**

**27** **New Product Updates**

**28** **Gift of Time**

**28** **Answers From Customer Service**

**44** **Shopper's Guide**

**46** **Industry Watch**

*Cover illustration by*
*Illustrated Alaskan Moose*

*Online Today*™, June 1985
Volume 4 Number 6

Published by CompuServe Incorporated,
an H&R Block Company

**Editorial and Advertising Offices**
5000 Arlington Centre Blvd.
P.O. Box 20212
Columbus, OH 43220
614/457-8600

**Publisher**
Calvin F. Hamrick III
**Editorial Director**
Richard A. Baker
**Editor**
Douglas G. Branstetter
**Art Director**
Thom Misiak
**Associate Editor**
Mary Mitchell
**Contributing Editors**
Charles E. Bowen, Cathryn Conroy, John Edwards, Carole Houze Gerber, Ernest E. Mau
**Copy Editor**
Kacy Cook
**Assistant Editor**
Robert Loomis
**Creative Services**
Heidi Van Engen Gerhold II, William Van Engen Gerhold II, Illustrated Alaskan Moose, Garry Burdick, Fern Eisner, Joseph Hazzard, David King
**Production Assistants**
Chris Moore, Susan Toombs
**Printing Services**
The Lakeside Press R. R. Donnelley & Sons Co.

**ADVERTISING SALES**
**National Sales Manager**
Stephen J. Peters, 5000 Arlington Centre Blvd., Columbus, OH 43220; 614/457-8600
**Mid Atlantic & Southeast** Nelson & Ross Associates Inc., 55 Scenic Dr., Hastings-on-Hudson, NY 10706; 914/478-0491; Bonnie Nelson, Kaja Ross
**Midwest** Kingwill & Krukowski Inc., 4433 W. Touhy Ave., Chicago, IL 60646; 312/675-5755; Dave Kingwill, Edward Krukowski, Baird Kingwill, Kevin Kovalovsky

**President and Chief Executive Officer** Charles W. McCall, **Vice President, Market Development** John E. Meier, **Vice President, Finance; Secretary and Treasurer** David C. Swaddling, CPA, **Executive Vice President, Computer Resources** Alexander B. Trevor

*Online Today* reserves the right to accept or reject advertising and editorial contributions. The content of *Online Today* is protected by copyright 1985. All rights reserved. Copying done for other than personal or internal reference use without permission is prohibited.

The opinions expressed by writers do not necessarily represent the views of *Online Today*, the publisher CompuServe Incorporated, the H&R Block Company or the executive boards of those companies.

Address all editorial correspondence to the editor at *Online Today*, 5000 Arlington Centre Blvd., P.O. Box 20212, Columbus, OH 43220. Unacceptable manuscripts will be returned if accompanied by sufficient first-class postage. *Online Today* assumes no responsibility for return or safety of unsolicited editorial material.

*Online Today* and CompuServe are trademarks of CompuServe Incorporated.

*Online Today* is published monthly for $30 per year by CompuServe Incorporated, 5000 Arlington Centre Blvd., P.O. Box 20212, Columbus, OH 43220. Second-class postage pending at Columbus, OH, and at additional mailing offices.

POSTMASTER: Send address changes to *Online Today*, P.O. Box 20212, Columbus, OH 43220.

BPA Membership (Selected Market Audit Division) applied for October 1984.

Even the most adept computer programmers started out as beginners. And most of them haven't forgotten what it's like to download a program or participate in an online conference for the first time.

These experts are a resource to novice computer users, and novices, in turn, can often help each other solve minor technical problems. This interaction and sharing of information happens in local computer users' groups, but the collaboration between all levels of computer users nationwide is perhaps most evident in computer-specific forums offered on videotex services.

Whether you use an Atari, Commodore, IBM, Kaypro or other brand of personal computer, you're likely to find one or more online forums specifically for users like yourself. In addition to hardware-related forums, there are forums for users of certain types of software and computer operating systems.

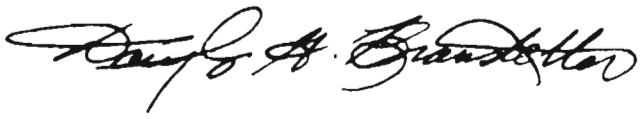
Members use the forum message boards to compare notes on technical problems, exchange advice on computer hardware and software, and post programming opportunities for "group projects." When a computer line becomes obsolete, members can search for information on it by posting a message in the appropriate forum.

The most popular item shared among forum members is public domain software. Members need only download the software, store it to disk and run it. Software programs in the forum data libraries range from telecommunications faculties and filing utilities to games.

Through the online conferencing capability of the forums, computer users can meet on a regular basis for online discussions and interviews with "guest speakers" from the computer industry.

While most computer, software and system-specific forums are operated by individuals with expertise in the care and application of a certain brand of computer equipment, a few are officially-sponsored and operated by computer companies. Borland International, for example, offers an online hotline linking users to company representatives. Users benefit from the convenience of contacting the company at any time through the forum message board. In addition, user feedback helps the company to continue improving its products.

Writer Alex Krislov examines the impact of computer-related forums in the cover article, beginning on page 14. In two Update articles starting on page 17, writer Mary Ellen Stone features online support for software users.



Douglas G. Branstetter
*Editor*

# EYE GUARD™

## LEAD IMPREGNATED TERMINAL SCREEN SHIELD

Eye-Guard is a VDT screen shield made of the same protective lead-impregnated acrylic used to shield workers in x-ray rooms and nuclear power plants.
Cuts glare as well as most types of radiation that may be emitted by malfunctioning computer terminals.
Attaches easily to most computers with convenient Velcro™ tabs.

**$129.95** 30-DAY MONEY BACK GUARANTEE

**PLUS $4.00 SHIPPING & HANDLING**

To order with a credit card or for more information CALL TOLL-FREE

**800-221-7070**

**In New York CALL (212) 989-6876**

Langley-St.Clair
Instrumentation Systems, Inc.
132 W. 24th St. New York, NY 10011

Circle 5 on the Reader Service card or GO EBB.


## LETTERS

### Online computer services

I have seen many columns in *Online Today* about other new or proposed online computer services, but there is one major one that you missed. The network, called Bitnet, includes at least 500 nodes, most of them located at universities nationwide. The central node is at CUNY (City University of New York).

This semester, Earnet joined the network. It is the European American Research Network. Bitnet is now linked to Italy, France, Spain, Germany, Switzerland, Israel and Canada.

To participate in Bitnet, you must be a computer science student at one of the connected universities. The network allows users to send messages and programs. Now, it is used mainly for students in different universities to get acquainted and to cooperate in research projects.

Mark F. Rand
Floral Park, N.Y.

### IRS Feedback Area

In the article, "How to Decide About Year-end Investments" (Dec. 1984 issue), it says that the IRS will answer individual questions concerning tax preparation and financial planning in the Feedback Area of the IRS Videotex Tax Library on CompuServe. The quote, "You can simply leave a message and it will be answered by the IRS," is incorrect.

The purpose of the IRS Feedback Area on CompuServe is to allow subscribers to leave comments and suggestions on the content and structure of the IRS Videotex Tax Library. It is not for the purpose of answering tax questions.

The directions for use of the Feedback area state that we cannot respond to tax questions.

Those who have tax-related questions should refer to their tax packages or contact their local IRS offices, listed in local telephone directories under U.S. Government Offices, Internal Revenue Service, Federal Tax Assistance.

Hugh W. Kent, Jr.
Publishing Services
Internal Revenue Service


# Now Online Today & the new Electronic Edition bring you the best of both worlds—print & electronic—in complementary publications.

Online Today's Electronic Edition offers computer and videotex industry news updated daily, the newest product announcements and additional hardware, software and book reviews.

And since every article and review is written and edited by our staff of videotex journalists expressly for online retrieval, it adds immediacy and impact to the news and reviews that matter to our readers.

More bounce to our Electronic Bounceback. The world's first interactive reader service system is now more responsive than ever. Use it to request free information directly from advertisers, or from companies and manufacturers featured in either publication.

Try the new Electronic Online Today today!

Online TODAY
ELECTRONIC EDITION

P.S. We've taken the liberty of arranging for home delivery: GO OLT from any prompt in the CompuServe Consumer Information Service.

**Reviews of Apple products**

I am surprised to find that I am the only CompuServe subscriber using an Apple computer. I've come to this conclusion, because the last two issues of *Online Today* do not contain reviews for Apple hardware or software. All the reviews are about products that can be used with an IBM PC. Does this mean that all CompuServe subscribers use IBM computers? I hardly think so.

This seems to be an unfair policy. I have discussed this with other users. Your bias toward IBM has not gone unnoticed. I think you are alienating a large share of the CompuServe subscriber base. Will this change in the future?

Ken Schneider
Derby, Conn.

The lack of Apple reviews is not a matter of policy, but reflects the fact that few Apple products have been submitted for review by our staff during the past year. We do try to obtain products other than games (we do not review games) for numerous computers, but the response from suppliers, at least in the case of Apple products, has been almost nonexistent since the middle of 1984. At present, a special effort is being made to furnish Macintosh reviews beginning a few months from now, but again, the response from software and hardware suppliers has been anything but encouraging so far.

Apple computers are not the only ones affected this way. The flow of Commodore items stopped abruptly at the beginning of 1985. Products for other machines like the Atari never have been made available. CP/M products also have stopped arriving.

Readers should pay attention to the identification of computers provided at the beginning of every review. In many cases, a product is available for a variety of computer brands but is submitted to us in IBM PC form. We do try to identify all available configurations when that happens, so the representation of other machines may actually be larger than it first appears.

We assure you that we are not deliberately neglecting your favorite computer. When we have reviewable products, you will see the reviews in either our print or electronic edition.

Ernest E. Mau
Reviews Editor
*Online Today*


# Encyclopedia Electronica!

**Grolier's Academic American Encyclopedia** online through CompuServe.

The encyclopedia that's fun to use—for the whole family.

The encyclopedia that's always current—updated every 13 weeks.

The electronic encyclopedia that costs the same as a computer game, and has hundreds more uses—from homework to health questions, from trivia to travel preparation, from business to background on new topics, from special speeches to science facts.

Subscribe Today— GO AAE on CompuServe.

# Unlimited Usage for Only $49.95 per year! (Plus connect charges)

Also on CompuServe—GO EDU-6 to play **The Whiz Quiz*** ™ trivia game.

Grolier Electronic Publishing, Inc.
95 MADISON AVENUE, NEW YORK, NEW YORK 10016

*The Whiz Quiz Trademark of Grolier Electronic Publishing, Inc.

Circle 40 on the Reader Service card or GO EBB.


*Please address your letters to the editor through* Online Today's Electronic Edition *Feedback area. Simply enter GO OLT-33 from any prompt in the CompuServe Consumer Information Service, or write to: Letters to the Editor,* Online Today *magazine, 5000 Arlington Centre Blvd., P.O. Box 20212, Columbus, OH 43220.* Online Today *reserves the right to edit letters for length, content and clarity.*

## Talk to Us

Online Today has a feedback area in the Electronic Edition. Simply GO OLT-30 from any prompt in the CompuServe Information Service.

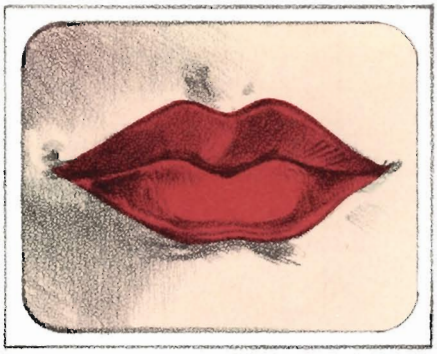
Online TODAY
ELECTRONIC EDITION

## Audiotex Arrives

Audiotex. It may sound like just another computer buzzword, but this fully automated, voice-delivered, interactive information service is about to explode on the American business scene. And to access it, all you need is a telephone.

Says Haines Gaffner, founder and president of Link Resources, "Audiotex is limited in the amount and depth of information it can convey, and the lack of visual or print-out options is a handicap. But everyone has a telephone and when there is dynamic, ephemeral information, the audiotex technology can satisfy many of the needs of the marketplace that videotex system operators are assuming will require their technology."

How does audiotex work? A consumer, professional or business executive who needs information or who wants to place an order simply picks up any touch-tone phone at home, in the office or even in a telephone booth. After dialing a local or toll-free number and entering an account number, a preprogrammed electronic "voice" introduces itself and asks a question,



which can be answered by touching the buttons on the telephone. This "conversation" continues until the information has been completely delivered or the order placed.

Audiotex is best used for stock quotes, weather, news services and sports, allowing users to directly access a specific quote, team, score or news story.

According to *Audiotex: Markets and Players*, a report distributed by Link, "Audiotex can be utilized by thousands of firms — from banks to hotels . . . from information providers to catalog marketers — who want to let their customers know where to find their products or service centers."

Costs vary from service to service: Some charge for teleconnect time, others charge a flat rate per call and still others charge based on the type of information accessed.

*— Cathryn Conroy*

## Computer Crime Law Drafted

Computer crime is growing at a rapid pace, according to the results of a recent Data Processing Management Association survey. Now, in an effort to address the issue, the DPMA is drafting model legislation that's aimed at curbing computer fraud and abuse.

Richard Cashion, chairman of the DPMA's computer crime subcommittee, notes that while many computer crime laws are already on the books, "the computer itself has generated items of property that never existed before, such as information and software, which are not covered by common law."

"We need uniformity across the nation," Cashion says. "One of the biggest sources of confusion is the term 'unauthorized.' It goes without saying that abuses of resources, stealing computer time to run a business on the side and stealing information are unauthorized acts. But the statutory definition of 'unauthorized' varies from state to state."

Specific categories of computer fraud and abuse to be included in the DPMA's model act are unauthorized use of computing resources with the intent to defraud; unauthorized use of computing resources for the purpose of experimentation; unauthorized release of computing resources for the purpose of experimentation with a loss to the victim of under $1,000; and unauthorized release of computing resources for the purpose of experimentation with a loss to the victim of more than $1,000.

Twenty-one percent of the respondents to the DPMA survey reported that their organizations have experienced losses as a result of computer fraud and abuse. Unauthorized employee use is the leading category of crime committed, according to the respondents. Software theft/copying and hardware theft followed close behind. In monetary terms, losses reported by respondents as a result of fraud and abuse ranged from $5,000 to $300,000.

According to the DPMA, only half of computer fraud incidents are ever reported to law enforcement authorities.

## High-Tech Housing

As you already know, engineers, technicians and other computer workers are in great demand. High-tech companies have gone to great lengths to attract qualified employees to their payrolls. Among other goodies, firms have been known to provide furnished gymnasiums, paid sabbaticals, country club-like restaurant facilities, free cars — even hot tubs — to their employees. Now, one high-tech company has latched onto an idea that's designed to hit high-living Silicon Valley in one of its sorest spots — housing costs.

Last year, Inmos Corp., a semiconductor maker, ran an ad in a San Jose newspaper boasting of low home prices in its headquarters city of Colorado Springs, Colo. The ad, which provided no details on salaries or working conditions, simply pictured area homes for sale and their respective asking prices.

James Dwinells, Inmos' employment manager, claims the ploy was successful. "We snagged eight San Jose-area workers with the ad," he says. "I don't know if all of them came here because of the low housing prices, but I think it was a very important factor in most of the cases. I think a lot of them also wanted to leave the Silicon Valley rat race and wanted to join an exciting firm like Inmos."

Like the rest of the semiconductor industry, Inmos is currently experiencing a serious sales slump and has instituted a hiring freeze. "We're not planning to run any similar ads in the near future, but when things pick up again, I see no reason why we wouldn't," says Dwinells.

*— John Edwards*

**PSSST!**

Get behind the scenes with Monitor's "Behind the Screens" section on the Electronic Edition of Online Today. Find out what's *really* going on. GO OLT from any prompt in CompuServe and select "Monitor Daily News" from the main menu.

Online TODAY
ELECTRONIC EDITION

## Hospital Transmits Records Via Videotex

In Nashville, the Medical Illustration Department of Vanderbilt University is using videotex to further medical education. The school recently acquired an AT&T Frame Creation System to design NAPLPS video images of patient charts and records that are then uploaded to a satellite for transmission to Tennessee-area hospitals.

"As a major research facility, many area hospitals use our records in their educational programs," says Dr. Dennis Wentz, a Vanderbilt staffer. "In the past, we had to place the images on videotape and ask our subscribers to drive many miles, often over mountain terrain, to pick up the records. The satellite system enables us to ship data in a faster, safer and technically superior manner."

While Dr. Wentz says he's "generally pleased" with the system, he does find one important drawback. "Our biggest problem right now is cost," he says. "Currently, it costs a subscriber about $3,000 to install an earth station to receive the images. In the future, we hope the cost will come down, but right now the system is limited only to the large hospitals and clinics that can afford it."

The Vanderbilt department expects to transmit more than 20,000 videotex-based records by satellite during 1985.

## Adopt a Computer

Want to adopt an orphan computer? Then you ought to visit a computer orphanage.

North America's first and largest computer orphanage is located in Mississauga, Ontario. The brainchild of 35-year-old Brian Keenan, the International Computer Orphanage sells under-$250,000 mini- and microcomputers to business and professional "parents."

"I started the business last year when I realized that people who wanted to buy relatively low-cost used computers had no place to go. At first I wanted to call them 'used computers,' but thought that sounded pretty ordinary. So I began calling them 'orphan computers' and the name sort of stuck."

Keenan estimates that more than a half-million computers are "orphaned" each year. The systems become unwanted when businesses go under or when newer and more powerful machines are needed.

"As a broker, I match sellers with buyers. We then provide a full range of services, including repairs and storage — we even offer people the opportunity to try out a computer before making a commitment," Keenan says.

"Business has been very good," he says. "Like a real orphanage, we get far more requests for adoption than orphans donated."

## Computerized Ticket-Seller Punches Out

Last year, we told you about The Agent, a dedicated computer terminal that enabled some Texas movie theater patrons to skip long lines and purchase their tickets with a credit card. ("The Automated Movie Theater," Monitor, *Online Today*, November 1984.) The unit was installed at three Dallas-area theaters, including the Prestonwood 5, and at the time was hailed by its manufacturer as a "qualified success."

That was last year. In 1985, The Agent's future looks a lot bleaker.

"It seemed like a good idea at the time, and it should have worked, but it just didn't click," says Jeffrey Schnabel, president of the Texas division of American Multicinema Inc., one of the country's largest movie theater chains, and operator of the Prestonwood 5.

"In a way, it's hard to understand," Schnabel states with a tone of resignation in his voice. "The Prestonwood 5 is located in an upscale, credit card-oriented community, but very few of the patrons availed themselves of the machine. We expected people would have been happy to use the machine and avoid the lines, but they didn't. I have no explanation. The whole thing was a flop," he says. "We'll be disconnecting the system shortly."

## Howard Johnson's Goes High Tech

Howard Johnson's has a new high-tech look. The popular chain of inexpensive, family-style motels wants to attract a whole new guest list and is actively seeking the lucrative market of corporate business travelers.

The company has opened seven new hotels — called the Plaza Hotels — in key cities around the United States. They are full-service hotels in the mid-price range. In addition to the usual amenities most business travelers have come to expect, such as valet service and extensive meeting rooms and banquet facilities, the Plaza Hotels in Washington, D.C., and John F. Kennedy Airport in New York City have installed in-room computers.

Complete with instructions, they are easy to operate using a joystick and one button. The D.C. system features in-room convention and meeting schedules, while the JFK system will soon offer in-room check-out capabilities.

Installed by Videotel Inc., the Red Button Room Services computer system at both hotels features airline schedules and services, hotel directory, area entertainment and shopping guides, sports, stock reports, Associated Press news wire, health and fitness programs, horoscopes, "insider" newsletters, and business and investment updates. New services to be implemented soon include electronic funds transfer, in-room messages and electronic shopping.

Whether all seven of the Plaza hotels will have in-room computers remains to be seen. Says John Bentz, a spokesperson for Howard Johnson's, "We're taking a good look at the system and its use by our guests before determining whether it will be expanded."

*— Cathryn Conroy*

## Assorted Bits

**President Reagan** presented the first National Technology Awards to eight of the nation's leading high-tech firms and hailed their accomplishments in helping to bring about the "beginnings of a second transformation" of the nation. Among those recognized were Steven P. Jobs and Stephen G. Wozniak, founders of Apple Computer Inc., and Bob O. Evans, Frederick P. Brooks Jr. and Erich Bloch, formerly of IBM. "You are heroes, every one of you, just the same as were Thomas Edison and Alexander Graham Bell," Reagan said during a White House presentation ceremony. The awards were created by an act of Congress in 1980 to recognize individuals and companies that have "advanced U.S. competitiveness in world markets, created new jobs and made technological contributions to industries and people."

**Public Broadcasting Service's** new for-profit division has signed an agreement with IBM and Merrill Lynch Inc. to deliver computer data to personal computers via radio signals from satellites. IMNET, as the venture is called, wants to deliver stock market and business news to an area, which according to the Associated Press, "includes 96 percent of the U.S. population, via a portion of the PBS video signal known as the vertical blanking interval."

IMNET expects to start marketing the service to homes and offices later this year, but it can't begin until stations agree to broadcast the signal. IMNET chief Joseph P. Castellano told AP that the service is primarily designed for the financial services industry, but that the low cost would allow the company to broaden its market to include such areas as the individual investor with a home computer.

**Tom Tcimpidis** has been cleared of misdemeanor charges by Los Angeles officials. Tcimpidis is the Los Angeles area BBS operator whose computer equipment was seized by Pacific Bell telephone company officials and police last autumn after a caller posted stolen credit card numbers in a public message on Tcimpidis' system. Commenting on the case and its stifling effect on BBS owners nationwide, Tcimpidis told *Online Today*, "Most sysops have learned . . . they must protect themselves first. Now they are much more likely to simply delete a message that contains illegal information and lock out the person who posted it."

**California Assemblyman Tom Hayden** is trying once again to enact a bill to regulate computer terminals, according to the Associated Press. A similar proposal was killed by the Assembly last year. His new bill would require the state to develop guidelines relating to video display terminals and associated equipment used by state agencies.

**RCA, J.C. Penney and Citicorp** — three potential major players in the videotex market — have discontinued their 3-month-old study of a possible videotex venture. According to the *Videotex Now Newswire*, RCA "wants to develop a broad-based service through a consortium." Penney's is seeking other firms interested in videotex study groups, says the newsletter, while Citicorp, which already has some 4,000 users of its Direct Access bank-at-home project, won't comment.

**The FCC has waived** one of its rules for transmitting data over telephone lines. According to the *Wall Street Journal*, the suspension was requested by the seven former Bell operating units and will allow the companies to compete with such existing packet operators as Telenet and Tymnet.

**MasterCard International Inc.**, as part of a test project, has started distributing "smart cards" — credit cards with built-in memory chips — to about 50,000 South Florida customers. If the company is happy with the test's results, it might begin using the cards nationwide as early as next year, reports the Associated Press.

**IBM has unveiled** two new desktop models of its Series 1 general-purpose business computer. The machines can stand alone, be linked with existing Series 1 computers, or operate as an IBM PC. According to the Associated Press, both units — the 5170 model 495 and the 5170 model 4950 — are modified IBM PC-ATs.

**Japanese micro-maker Sord Computer Corp.** has been purchased by Toshiba Corp., one of Japan's largest electronics concerns. The Associated Press says Toshiba initially acquired 37.6 percent of Sord's stock and later will buy majority control, making Sord a Toshiba subsidiary.

## AT&T Looking at Electronic Mail

While MCI and Western Union continue to lose barrels of cash on their MCI Mail and EasyLink electronic mail services, yet another telecommunications giant is preparing to enter the field.

AT&T is currently testing AT&T Mail, a computer-based message service that will deliver documents to an electronic mailbox or to homes and offices with the aid of an overnight courier service. Although the service is not expected to be launched until later this year, the company has been showing a test version of AT&T Mail to computer and telecommunications industry insiders and Wall Street analysts since late 1984. Currently, the firm is evaluating the project in-house with the help of some 3,000 AT&T employees.

According to an AT&T source, the service is expected to offer one significant feature that both MCI Mail and EasyLink currently lack — the ability to let users retrieve their messages without a computer. How? AT&T Mail will provide a voice generation system that will enable customers to have their mail read to them over any ordinary telephone.

*— John Edwards*

## French Union Strikes Against Work-at-Home

In France, as in the United States, labor unions are beginning to voice concern over high-tech at-home workers.

A recent report issued by the CFTD, the French metalworkers' union, states that "By 1990, the computer may create the worker that management dreams of — an independent contractor working alone at his computer terminal, agreeing to work overtime without compensation in order to reach management's objectives and get his employment contract renewed."

The report concludes that computers are little more than an excuse for management to renew 19th century cottage industry practices.

*— John Edwards*

## Online Service Helps High-Volume IBM PC Buyers

Having problems with your IBM Asynchronous Communications Adapter? Can't quite get the hang of PC-DOS 3.0? Need help installing an 8087 co-processor? If you're a high-volume corporate customer of IBM, why not call Big Blue for an answer?

One of the great secrets of the PC world is the fact that IBM operates a 24-hour-a-day online help service for customers of its National Accounts Division. IBM's Direct Electronic Customer Support Facility, based in Irving, Texas, transmits users' questions directly to technical experts in Boca Raton, Fla., IBM's PC headquarters. According to an IBM spokesman, the service usually replies to users' inquiries within a day.

To use the service, a customer holding an IBM Volume Purchase Agreement will need a special account number and password. If you think you qualify, further information and application forms can be obtained by calling the IBM Support Center at 800/527-9293.

Now wouldn't it be nice if IBM provided such a service for customers who didn't buy their computers by the carload?

## Information for Bankers

The Bank Marketing Association has introduced FINIS, an information service targeted at banking executives.

According to an association spokesman, the service contains abstracts of more than 16,000 magazine and newspaper articles, including information on new retail banking products, credit scoring methods and investment strategies. FINIS is available over the Dialog and Mead Data Central systems. The BMA plans to add more than 1,000 new articles to its database each month.

Complete details are available from the Bank Marketing Association, 309 W. Washington St., Chicago, IL 60606, 312/783-1442.

## The Average User

What sort of person uses CompuServe's Electronic Mall™? A.C. Nielsen Co. has surveyed 500 "active users" of the mall and has come up with a profile of the average user.

According to Nielsen, the typical mall customer is 35 years old, a college graduate, male, and has an annual income of $43,000. The study also revealed that this user lived in a home with three other persons, spent 10.6 hours per week at a computer, 6.6 hours watching television, 4.3 hours reading magazines and 3.5 hours reading newspapers.

*— John Edwards*

## AI Becomes Profitable

Artificial intelligence is coming of age. The stuff of which science fiction tales are made has reached the "bottom line" — it can now actually improve business products, according to Sy Schoen, manager of Litton's artificial intelligence program.

Schoen says the new technology has taken computers beyond "sophisticated number crunching" to participation in management decision making.

Specifically, artificial intelligence will eventually be used at Litton for production management, customer service, marketing, planning and further automating the company's facilities. Litton is a technology-based company providing advanced electronic and defense systems, industrial automation systems and geophysical services to the United States and world markets.

"Artificial intelligence can be applied to the products and services we sell to our customers, as well as to make our own internal management operations work better," Schoen says. "We believe the technology can help us reach the best and most cost-effective decision."

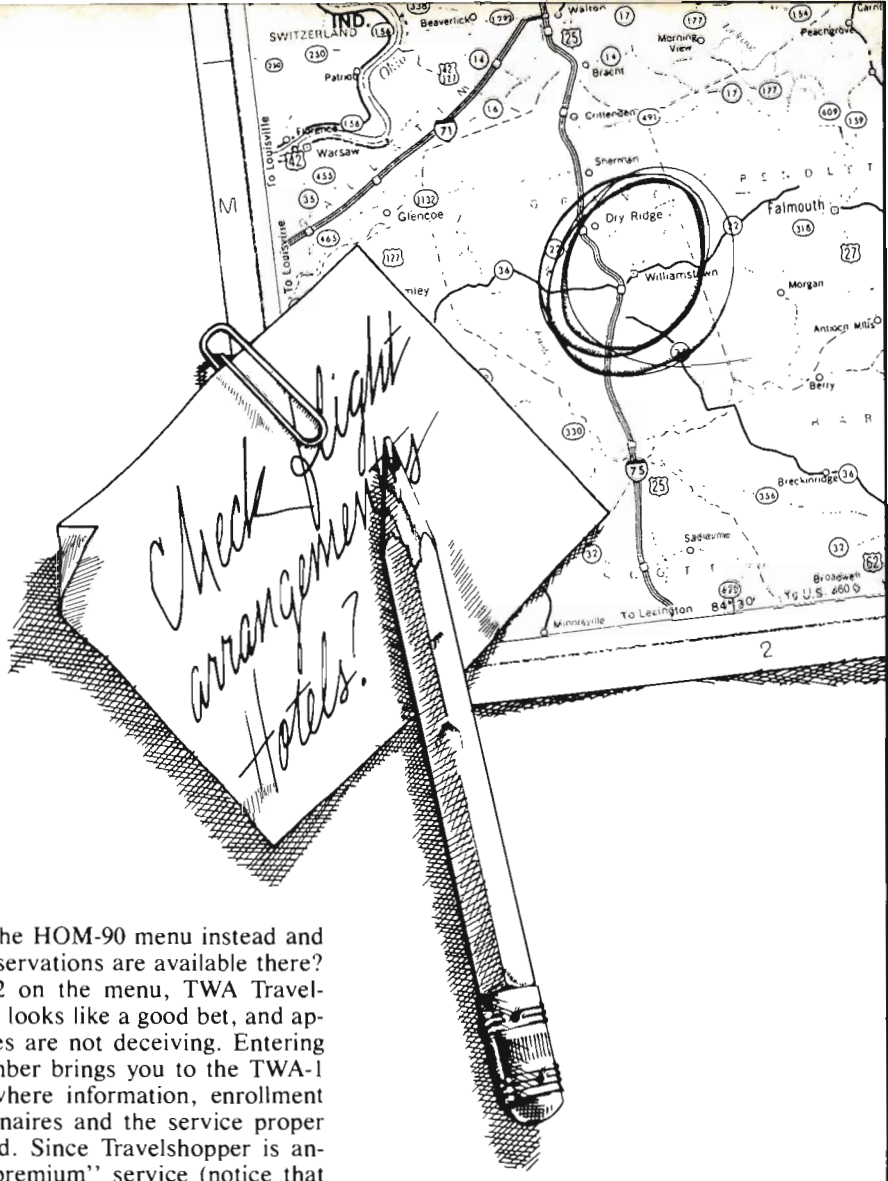
Several divisions of Litton are now using artificial intelligence development programs, including an electronic catalog for designing and marketing complex cameras, image analysis to aid experts in studying surveillance photographs, and enhanced radar identification of multiple aircraft and ship design.

The company, based in Beverly Hills, Calif., is also using the new technology to bolster productivity and lower costs. In one area, artificial intelligence is being used to simulate complex automated warehouse systems to provide a complete evaluation of the factory floor and identify and solve potential problems.

*— Cathryn Conroy*

*For more Monitor articles featuring daily updated computer and videotex industry news, access* Online Today Electronic Edition *Monitor in the CompuServe Consumer Information Service. Simply enter GO OLT-160 from any prompt.*

# Traveling by Computer




I love to travel. Ports unknown are my natural habitat, familiar places my first idea of rest. In fact, I love to travel almost as much as I hate to plan trips. A contradiction? Perhaps. Much as I enjoy going places, I hate searching out hotels, figuring out routes and finding the right airlines. A do-it-yourselfer by nature, I never use travel agencies, but I still despise playing the agency's role.

Consequently, I make CompuServe's travel services menu, on page HOM-90, one of my frequent stops when I journey online. Planning a journey isn't hard at all — when you hand the bulk of the work to your computer!

The first stop on my itinerary is the Official Airline Guide, item 1 on the menu (or GO OAG). OAG is a "premium service," requiring fees above CompuServe's basic rate, making necessity the mother of brevity. When entering OAG, you should have all the relevant information at your fingertips. Know when you want to start your voyage and when you plan to return. Have your printer on or a pencil handy.

OAG has a non-premium help file online. If you've never visited the service, read it first and save time and money you might otherwise waste in fruitless experimentation.

For a quick example, though, suppose you're ready for a trip to Tel Aviv, Israel. Upon reaching the OAG menu, you enter item 3. Notice the dollar sign next to that item? That's a reminder that OAG will cost you a bit extra.

Since the Guide covers more than 700,000 flight schedules, hundreds of different airlines and over 100,000 departure-destination combinations, a question-and-answer format makes for the simplest searches. To search for the right plane route, then, enter "/S" to start the dialogue. From there the Guide takes over, requesting departure and return cities and dates, allowing you a choice between direct flights and connections, and even revealing fares for the flights you deem the most interesting. As soon as the information you want appears, jot it down and type "/q" to leave the higher-priced service.

Armed with the Official Airline Guide information, you could simply phone the airline or a travel agent and book yourself a seat. But why not return to the HOM-90 menu instead and see if reservations are available there?

Item 2 on the menu, TWA Travelshopper, looks like a good bet, and appearances are not deceiving. Entering that number brings you to the TWA-1 menu, where information, enrollment questionnaires and the service proper are listed. Since Travelshopper is another "premium" service (notice that dollar sign?), have all information at hand; once again, a fast trip is the most efficient one.

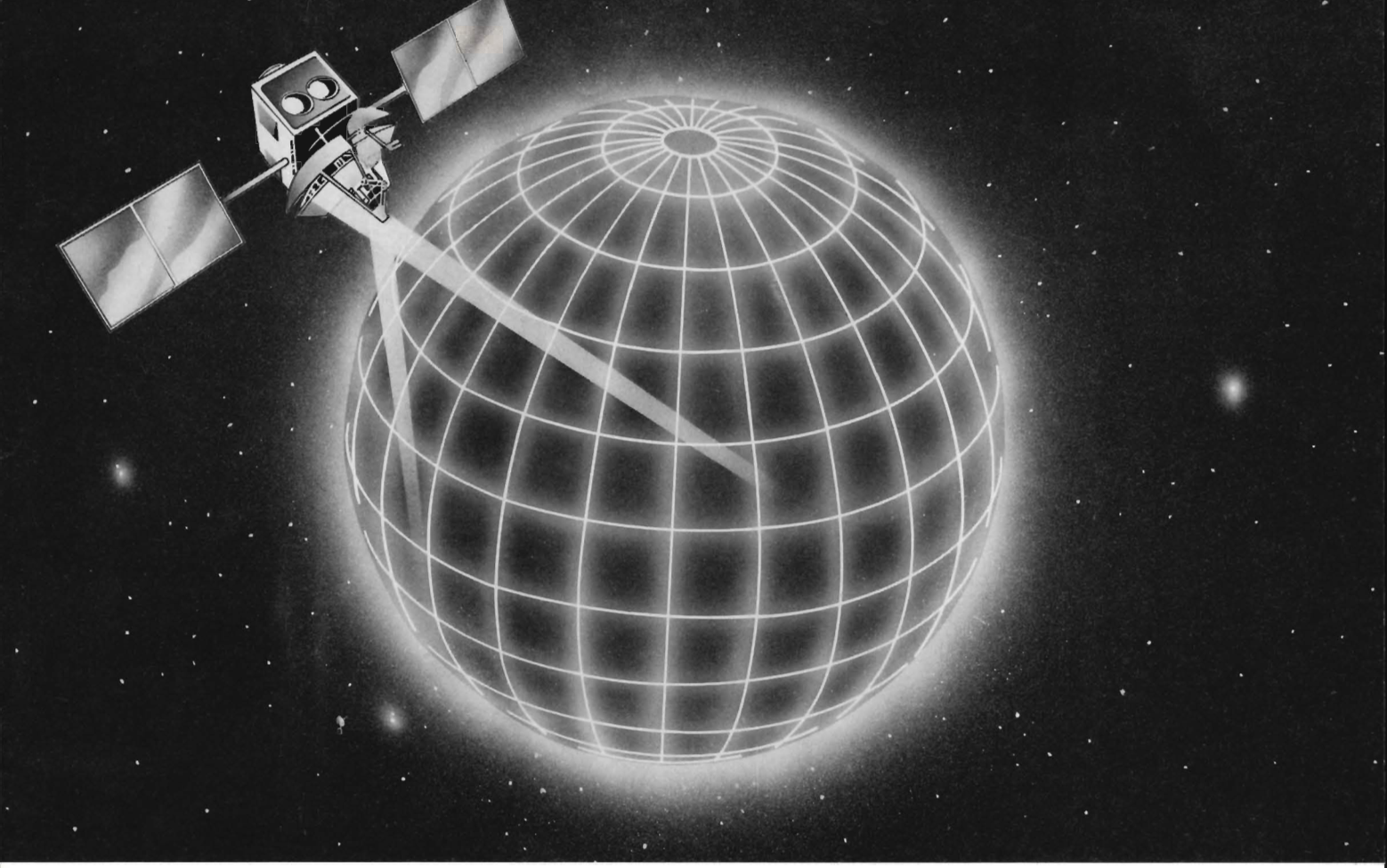
To make the best use of Travelshopper, enrolling is a must! Once your application is processed, not only can you book reservations, but you also qualify for some bonuses, such as the airline's "Frequent Flight Bonus" plan. Once you book your ticket, you need only pick it up at the local airline counter or at a travel agency.

Still, you'll need a place to stay. Jumping to page ATZ-1, you're ready to search the A-Z Hotel/Travel Guide. Should the hotel be near a specific airport? Would an outdoor pool be preferable? What about air conditioning and the method of payment? The ATZ Guide allows searches by locale, price range, hotel chain, acceptable credit cards and even by amenities, such as golf, indoor and outdoor pools, restaurants and tennis.

Well, you're almost ready to go! But before packing your trunk, you might benefit by finding other CompuServe subscribers who have made similar trips. Finding them isn't hard — those who enjoy travel meet and converse on the Travel Forum, page HOM-157. Dividing the world into such subsections as the United States, Europe, Asia, Mexico and more, the Travel Forum provides a forum for those who want to share the pleasures and pitfalls of travel. Where the other travel services produce raw information, the Travel Forum has that personal touch, where subscribers relate the human elements of travel from their own experiences.

This brief trip though the Travel Services menu, like most trips, misses some attractions. Want to see Disneyworld? "Discover Orlando" can help you plan your trip. "State Department Advisories" provides up-to-date news on government restrictions and advice. There's even a special item for those wanting to investigate the West Coast! So before you wear yourself out planning a voyage, enjoy an online excursion — and let your computer map it all out for you..

*Alex Krislov is a free-lance writer from Cleveland. His CompuServe User ID number is 70007,2130.*



# We Go to Great Lengths to Bring You The Daily Computerwire!

Around the world, to be precise. Via satellite and fiber optic networks—**The Daily Computer Wire**—is online and available 24 hours a day **every** business day!

We're the world's first independent online daily computer newsletter. We bring you inexpensive online coverage of the international computer and telecommunications marketplace—days and even weeks ahead of conventional publications. You read the news **as it breaks** direct from your terminal or printer.

You find out about new products and ideas, mergers and acquisitions, divestitures and defeats, while they're happening. You get reports direct from the floor of major industry conferences, along with on-the-spot insight from leaders in the field. You read the news while it's still in the making—tomorrow's breaking stories, available online for you today.

And you can access—**Computer Job Bank**—, our 'classified section' with the hottest jobs anywhere in the world. You get the lead on employment opportunities long before conventional ads tell the rest of the world about them.

You'll get it all on—**The Daily Computer Wire**—where the rest of the reading world will be ten years from now.

On CompuServe, just enter **GO TDC** and find out the lengths we've gone for you. Do it today.

**The Daily Computer Wire**—*an interactive publication from*

**The Direct Connection Co.**®

Circle 37 on the Reader Service card or GO EBB.

**The Daily Computer Wire™ • Computer Job Bank™ • Industry Standard Databases™**

# THE ONLINE ANSWER:

## COMPUTER-SPECIFIC FORUMS

By Alex Krislov

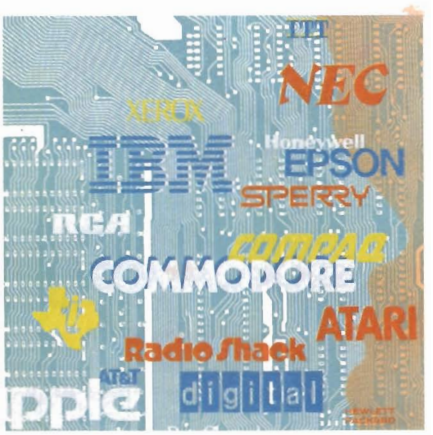
Imagine yourself in a huge shopping mall. Each store carries a different line of goods, all incompatible with one another. The mall directory is a puzzle, listing storefronts by names that lack any indication of the store's contents. How do you find the store with an inventory that will serve your needs?

This is, to say the least, a haphazard way to do your shopping. Yet many computer owners find themselves in precisely this position. Some stores carry a variety of makes and models, with software to match. Others carry only hardware or software. At some stores you'll find nothing but peripherals, such as printer paper and modems.

Finding documentation is often even harder. An expert on the Apple might be an ignoramus when it comes to the Commodore. Someone might know a TRS computer inside and out, but not recognize an IBM. Obviously, the answer is a separate source for each computer. But that puts you back in that confusing shopping mall. How can you find the information you need without checking every storefront in existence?

When personal computers first hit the marketplace, many computerists, from neophytes to experienced computer "hackers," formed "users' groups." These groups, ranging in size from the informality of a monthly club to the sophistication of nationwide organizations, provided members with the latest news about their computers. The drawback? Like navigating that confusing shopping mall, you had to find each group, figure out if it was right for you, and then deal with the inefficiency of non-computerized approaches to learning about your computer. It was only a matter of time before someone hit on the logical extension — putting users' groups into nationwide telecomputer systems.

CompuServe's extensive family of online forums and special interest groups includes dozens of databases for different computers, operating systems and software specialties. Some are sponsored by the companies manufacturing the computer, like "EpsOnline." Others are operated by "outsiders" with great experience and expertise in the application and care of their preferred computer brand, like the Micronetted Apple Users Group (MAUG). Each forum deals with one kind of computer. Similarly, some forums are structured around a particular operating system (such as MUSUS for p-System users) or software line.




**Computer-specific forums bring people from one end of the nation to the other together in a common meeting ground.**

Like any good users' group, a computer-specific forum is more than a mere coffee klatch. Members share enthusiasm for their chosen personal computer. The sharing of *information*, though, is the real purpose of each database. Computer-specific forums, or as they are known to many members, "hardware forums," bring people from one end of the nation to the other together in a common meeting ground. Once there, they share their troubles and their triumphs. Subjects too esoteric for an average user find homes in special subtopic areas.

Many a message thread on a computer forum grows out of cries for help. No computer user can claim he never needed a helping hand. Such pleas are readily answered. Members who remember their own times of trouble are quick to lend an ear. Sometimes, when a software operating question crops up, the programmer who wrote the software is the first to offer aid.

Technical information is another common coin of the realm. If you're having trouble getting that new hard-disk drive to run properly, it's likely that another member of the forum once experienced, and overcame, the same problem. Others may have information on fixing a hardware problem or advising electronics hobbyists on

how to improve their hardware.

**Software: Sharing and collaborating**

The most popular items shared among forum members are software programs. Like the original non-computerized users' groups, online forums compile large libraries of member-contributed software. Some is copyrighted, while some is in the public domain. In either case, the software need only be downloaded into a member's computer, stored to disk and run. Among the software programs to be found in online data libraries are telecommunications faculties, computer art, music, filing utilities, games and more.

Some of these programs began as simple challenges for a programming hobbyist. Others started as projects by members who needed a particular utility that was not available at a reasonable price on the open market — if it was available at all. Such software is not amateur work. Many of the programs can stand up to anything in a computer store, as far as complexity and reliability. It is not uncommon for forum members to desert their purchased software for these free programs.

Less often seen, but not unknown, are "committee" programs. Forums such as the IBM PC Novice Forum provide a special section on both the message board and in the data library for collaborative efforts conducted by the membership as a whole.

The Novice Forum's subtopic 8, "Group Projects," focuses on just such work. The latest version of the program being constructed is stored in Data Library 8, while Section 8 of the message board traffics in bugs, debugging ideas, possible improvements and general program testing. Sometimes the project is truly the creation of the membership as a whole. In other cases, a member or organization might upload a program for improvement and debugging.

Recently, for example, "Group Projects" centered on AUTOSIG, a forum-oriented telecommunications program. The project was managed by Vern Buerg and Frank Lipshutz. As members downloaded and experimented with AUTOSIG, errors and possible glitches were run down and removed. The result — a fine terminal program, an enjoyable round of work by diverse hands, and a feeling of accomplishment and fellowship for the entire forum membership.

"I don't expect perfection from a program that was produced by people giving freely of time and talents," wrote one member. "They gave me . . . a great tool that has saved me considerable money. I am sure that I would have been quite willing to pay for this program. These folks are providing support that is superior to anything I get from companies that nick me for up to $1,000 for their bug-ridden programs!"

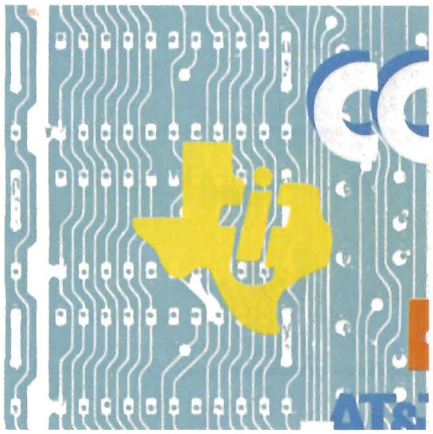
**Support for the obsolete**

While any personal computer user benefits from the enormous information resources in a forum, some users have a particular need for these information exchanges. Computers are no different than any other product; some product lines succeed magnificently, while others fail. When a computer line goes out of production, information on that line becomes as scarce as rainwater in a desert. There you are in the mall. You locate the storefront you want, and a sign in the window announces, "Out of business!"

Just because the computer is out of production, though, it hardly means it's out of use. Many purchasers need a ready source of information, which the marketplace no longer provides. For them, a forum is especially important. Texas Instruments Forum provides a good example.

When the TI99/4A vanished from American stores, the TI Forum went on. While the forum deals with all Texas Instruments microcomputers, it soon became the best source for information on the no longer existing 99/4A. Subtopic 5, "Tips & Tricks," helps users keep their "obsolete" machines running. Help files in the forum's databases provide guides to building joysticks, listings of smaller user groups in various cities and more. When the marketplace failed, TI owners used the forum to band together and fulfill their common needs. The forum also boasts a section for trading, and another on software and languages. Monthly newsletters provide the latest news on Texas Instruments machines.

"The 99/4A is antiquated," one member recently admitted, "but who wants to spend the bucks just to stay on the cutting edge of technology?" Because the TI Forum was online, he and his peers didn't have to waste money replacing perfectly usable machines.



***Just because the computer is out of production hardly means it's out of use. Many purchasers need a ready source of information, no longer provided by the marketplace.***

**Trading and tech-talk**

Perhaps you have a particular item for sale. An offer to other members of the forum, via a message on the forum bulletin board, places your notice in a market filled with prospective buyers. If you're searching for a piece of hardware that is not easily available, anoth-

er member might be able to help out. Since each forum is structured around a specific microcomputer, it's the most natural market in the world.

An "obsolete" computer, one no longer under manufacture, might require a replacement part. Your computer store may not stock it, but chances are good that someone in that computer's forum will know a store or repair facility that has the part you need on hand.

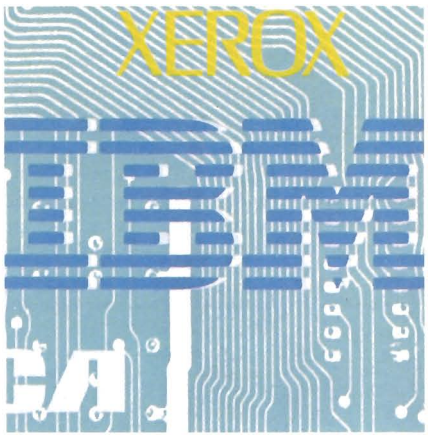
Jobs, too, might be advertised in a computer forum. Programmers are always in demand, and a computer-specific forum is a likely place to find the right programmer for the right machine.

And, just as software is debugged and traded in the forums, so are hardware improvements discussed. There are many electronic hobbyists in the computer culture. Because the forums draw their membership from the entire nation, soldering-gun wielders have a place to find one another.

### The Official Connection

While most computer, software and operating system-specific forums are only loosely connected to the manufacturers of the computers in which they specialize, a few are officially sponsored and run by representatives of the companies themselves. EpsOnLine, for example, is an official link to Epson America Inc. Thus, when a member requests help on EpsOnLine, the answer is not only useful, it is official and definitive! These forums provide users with the best of both worlds: the ingenuity of their peers and a direct link to the manufacturer's office.

One such forum is the Borland Special Interest Group. Borland's forum is part of a whole menu of Borland information. Prices, product descriptions, news releases and more are comple-




***Officially sponsored manufacturers forums provide users with the best of both worlds: the ingenuity of their peers and a direct link to the manufacturer's office.***

### Finding your user group

Still not sure which of the various storefronts will suit your needs? Here is a listing of CompuServe's computer-specific and software-specific forums, along with GO commands. To reach any of these forums, simply type GO with the listed page number at any prompt in the service.

| Forum | Page Number |
|---|---|
| Micronetted Apple Users Group (MAUG) | PCS-51 |
| Atari Forum | PCS-132 |
| Borland Forum | BOR |
| CP/M Users Group | PCS-47 |
| Color Computer Forum | PCS-126 |
| Commodore 64 Forum | PCS-156 |
| Commodore Programmer's Forum | PCS-116 |
| Computer Art Forum | PCS-157 |
| VIC 20 and Pet/CBM | PCS-155 |
| Digital Research Forum | PCS-13 |
| EpsOnLine | PCS-19 |
| Family Computing Forum | FAM |
| Heath User Group Forum | PCS-48 |
| HP Series 100 Forum | HP |
| IBM PC Forum | PCS-131 |
| IBM Novice Forum | PCS-129 |
| Interex/Hewlett-Packard | PCS-28 |
| Kaypro Users Forum | PCS-25 |

| Forum | Page Number |
|---|---|
| Logical Systems Inc. Forum | PCS-49 |
| Lotus 1-2-3 and Symphony | LTS |
| MUSUS (Pascal Users Group) | PCS-55 |
| Microsoft Forum | PCS-145 |
| MicroPro Users Forum | PCS-29 |
| Orch-90 | PCS-15 |
| OSI User's Group | PCS-125 |
| PDP-11 | PCS-53 |
| Panasonic Forum | PCS-114 |
| PowerSoft's XTRA-80 | PCS-56 |
| Programmer's Forum | PCS-158 |
| RCA Micros Forum | PCS-101 |
| TRS-80 Professional Forum | PCS-21 |
| TRS-80 Model 100 Forum | PCS-154 |
| Telecommunications Forum | PCS-52 |
| Texas Instruments Forum | PCS-27 |
| VAX Forum | PCS-16 |
| Whole Earth Software | PCS-24 |

mented by the official Borland Forum, where members can get direct support from Borland International. Subtopic headers name the company's software products for quick and easy guidance. Even a company history is available.

Borland's forum is not a one-way street, however. The forum administrators are quick to admit that support comes from CompuServe subscribers to the company's benefit as often as Borland helps members of the forum.

Another example is "The World of Lotus," sponsored by Lotus Development Corp. Lotus uses its online connection to provide utility updates and patches for its software programs, including the popular Lotus 1-2-3 and its music construction software.

Similarly, Commodore Business Machines provides direct input to the "Commodore Information Network," which is composed of no less than three separate forums. One provides support for the Commodore 64. Another deals with creative hobby computer use, allowing discussion and storage of games, music programs, graphics experiments, and related utilities. The third is a programmer's forum.

Finally, there are some forums that are not attached to any particular manufacturer or company, but remain restricted to members of an already existing group. A good example would be MUSUS, the official online forum of USUS, the international club of Pascal users. Entrants to MUSUS must show that they are already members of USUS to gain membership to the forum, and use of the extensive data library offered there. Those who have not joined USUS are directed to a membership application in Public Access.

Independent forums, however, often have as many lines into the main office as any "official" special interest group. Last year, for example, MAUG hosted one of the biggest online conferences in CompuServe history, when Steve Wozniak, the "whiz kid" who helped launch the entire personal computer industry, came for a general interview. Well over 100 Apple users jumped at the chance to "meet" the man who made it all possible.

*Alex Krislov is a free-lance writer from Cleveland. His CompuServe User ID number is 70007,2130.*

Each issue of *Online Today* is filled with information which CompuServe subscribers benefit from having close at hand for reference.

Use these handsome binders and slip covers to store and protect your back and future editions.

Both styles of case are handcrafted in leather-like fabric, similar to the storage units used by libraries to shelve and preserve their periodicals. And the spines of all cases are embossed with the *Online Today* logo for easy identification on any bookshelf.

The binders open flat like a book and hold up to 12 magazines each with a sturdy cable that passes through the center pages of each issue.

The cases hold 12 unbound issues apiece — so that each can be removed for individual reference.

**Slipcases**: $6.95 each
**Binders**: $8.50 each

---

**Mail to:** Jesse Jones Industries
P.O. Box 5120, Dept. OLT
Philadelphia, PA 19141

Send me: _____ cases and/or _____ binders.

Enclosed is my _____ check or _____ money order for $_____.

Name _____

Address _____

City _____ State _____ Zip _____

**Note:** Satisfaction guaranteed by Jesse Jones Box Corp. (since 1943). Allow four to six weeks for delivery. Add $2.50 per unit for orders outside the U.S.

# How To Access CompuServe By Radio

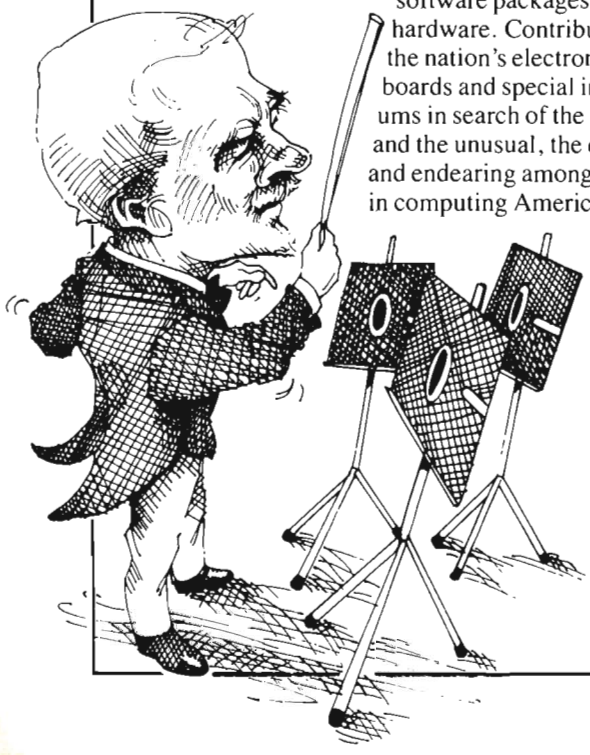
Introducing the Online Computer Connection . . . a radio magazine with features on computers and computing, brought to you by CompuServe—the country's leading microcomputer communication network.

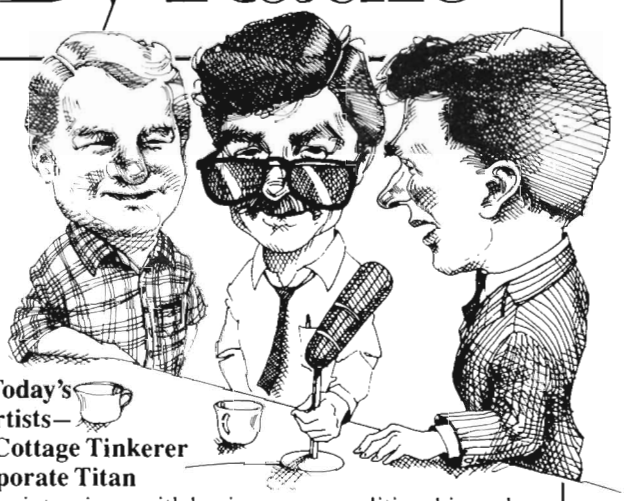
**Floppy Disk Jockeys**

Contributors to the Online Computer Connection include the same editorial staff that produces Online Today magazine and Online Today Electronic Edition and features reporters, reviewers, interviewers and columnists from throughout the computer industry press. They contribute to a fast-paced, five-minute news capsule heard daily on selected stations and edited with the computer user foremost in mind.

**Inside Jazz™, Symphony™, Music Construction Set™ and More**

Besides computer consumer reports and product and book reviews, The Online Computer Connection covers the activity of groups using specific software packages and computer hardware. Contributors monitor the nation's electronic bulletin boards and special interest forums in search of the unique and the unusual, the daring and endearing among events in computing America.





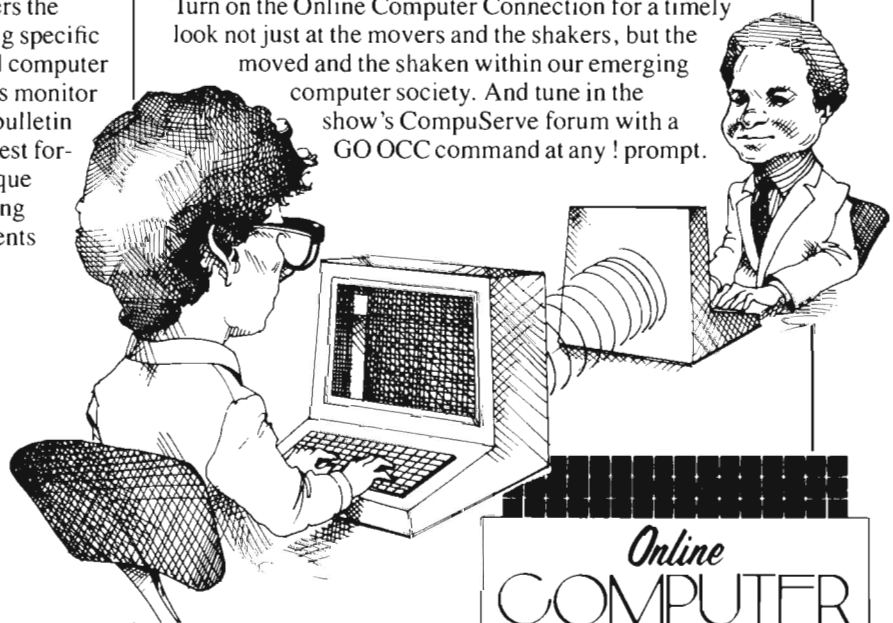
**Meet Today's Top Artists—From Cottage Tinkerer to Corporate Titan**

Incisive interviews with business personalities, big and small, bring authority to our analyses and vision to our forecasts. Whether discussing the creation of software or the retention of market share, Online Computer Connection guests illuminate topics shaping the microcomputer industry.

**Request Lines are Open for CompuServe Subscribers**

Listeners who also subscribe to the CompuServe Information Service can visit an online special interest group organized to support the show. Join this interactive forum to discuss features from the show with other listeners, retrieve transcripts, or make suggestions about future stories.

Turn on the Online Computer Connection for a timely look not just at the movers and the shakers, but the moved and the shaken within our emerging computer society. And tune in the show's CompuServe forum with a GO OCC command at any ! prompt.



*Jazz™ and Symphony are trademarks of Lotus Development Corporation. Music Construction Set is a trademark of Electronic Arts, Incorporated.*

*Online* COMPUTER CONNECTION

**Where to Tune in Your Area**
More stations plug into the Online Computer Connection every week. Look for the most current list in CompuServe's OCC Forum, or if you are not a subscriber, call CompuServe to find out the nearest station carrying the program. Watch local broadcast listings for news about the show. If the show does not air in your area, call your local station and have them contact Jameson Broadcast (614) 476-4424 for more information.

## CURRENT OCC NETWORK STATIONS

**ARIZONA**
*Tucson*
KTUC-AM 1400 khz

**CALIFORNIA**
*Riverside*
KGUD-AM 1490 khz

**COLORADO**
*Denver*
KDEN-AM 1340 khz

**FLORIDA**
*Orlando*
WKIS-AM 740 khz

**HAWAII**
*Honolulu*
KHVH-AM 990 khz

**INDIANA**
*Indianapolis*
WENS-FM 97.1 mhz

**MARYLAND**
*Baltimore*
WITH-AM 1230 khz

**MASSACHUSETTS**
*Springfield*
WLDM-AM 1570 khz

**NEW YORK**
*Albany*
WQBK-AM 1300 khz

*Buffalo*
WJJL-AM 1440 khz

**NORTH CAROLINA**
*Charlotte*
WGSP-AM 1310 khz

**OHIO**
*Cincinnati*
WNOP-AM 740 khz

*Cleveland*
WJW-AM 850 khz

*Columbus*
WCOL-AM 1230 khz

**PENNSYLVANIA**
*Philadelphia*
WIP-AM 610 khz

**SOUTH CAROLINA**
*Charleston*
WKCN-AM 910 khz

**TEXAS**
*Johnson City*
WETB-AM 910 khz

*Houston*
KLEF-FM 94.5 mhz

**VIRGINIA**
*Richmond*
WRVA-AM 1140 khz

**WASHINGTON, D.C.**
*Washington, D.C.*
WNTR-AM 1050 khz

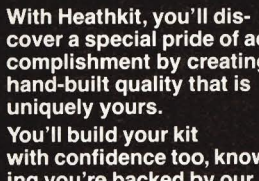
*The Online Computer Connection is produced by Jameson Broadcast with offices in Washington, D.C. and Columbus, Ohio.*


FREE famous high tech catalog

More than just a catalog, a trustworthy guide to what's new in computers and electronics.

For many years, the Heathkit catalog has been a guide to new, exciting kit products for people like you to build. To enjoy. Learn from. And save money.

What sets this catalog apart is its range of high quality products and accurate information on every product. Over 450 interesting items – Computer hardware and software • Robots • Precision test instruments • Computerized weather instruments • Solar hot water • Automotive and home energy products • Security devices • Color TVs • Video recorders, cameras and accessories • Stereo components • Amateur radio gear • Electronics courses leading from basic electronics to high tech.










With Heathkit, you'll discover a special pride of accomplishment by creating hand-built quality that is uniquely yours.

You'll build your kit with confidence too, knowing you're backed by our simple promise, "We won't let you fail."

If you don't have the latest Heathkit Catalog, the whole family is missing something great.







Send NOW for your FREE Heathkit Catalog

Heath Company, Dept. 339-262
Benton Harbor, Michigan 49022

Please send me the latest Heathkit Catalog Free.

Name _____

Address _____

City _____ State _____

Zip _____

Heathkit® Heath Company

A subsidiary of Zenith Electronics Corporation CL-777D

Circle 6 on the Reader Service card or GO EBB.

## Chapter 19

# The Other Woman

*Editor's note: Steve Roberts, Online Today's nomadic journalist, is currently traveling around the United States on a recumbent bicycle. He uses a Hewlett-Packard Model 110 for both writing and communication. During this trip, which is expected to cover 20,000 miles, Roberts is writing regular columns for* Online Today, *as well as a book, entitled* Computing Across America, *which will be published by Simon & Schuster this year.*

"So don't you ever miss having a home?"

That's a common question — much more common than, "how do you vote?" or, "what does your mother think about all this?" I am still holed up in the zany pressure cooker of Orange County, witnessing domestic violence and deadly serious one-upmanship on a daily basis, working full time on the book. The bike's mileage display has been stuck on 8599.9 for over a month and I own both a swivel chair and a Mr. Coffee — a combination that feels amazingly like a mortgage.

Yes, this is starting to seem dangerously stable. But people still ask if I miss having a home.

The answer is easy: "Oh, now and then." But you want to know what I really miss? I miss my old sweetheart — computer technology.

I haven't been keeping up with her lately. I remember the early days of our courtship, when I would stay up all night joyfully poking about with a scope probe in the circuitry of my first homemade system. I was much too obsessed with getting the machine up to even consider going to sleep.

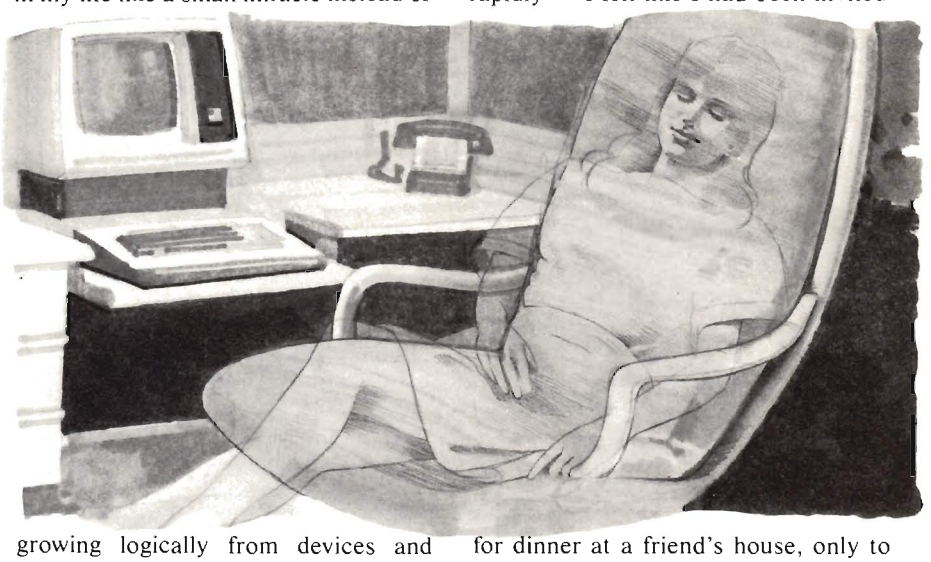
Ah yes, obsession. This was every bit as much an obsession as new love, and it catapulted me into the engineering business as surely as passion catapults the young and unready into wedlock.

Actually, it was quite a happy marriage for a while. Our micro-based children began processing data in factories far and wide, and occasionally I would keep things fresh by taking a mistress — freelance writing. We held it together for six years. For the kids, you understand.

But slowly my interest waned, her mystery fading in the gritty day-to-day routine of the business world. I started coming home late, claiming to be programming at the office when I was actually out flirting with publishers. I stopped noticing her new hairdos. I forgot our anniversary. We had money problems. Inevitably, we just fell apart, parting sadly without a legal struggle and becoming a statistic.

I moved in with my mistress and began writing about the marriage, the kids, and that whole dizzy whirlwind-dustry of computers and information technology. I missed her, painfully at times, and thus kept in touch — maintaining a friendship consistent with all those years we had been close. And then . . . I took off to live on a bicycle.

Now it's over. I have been on the road for a year and a half, and Technology and I have drifted apart. We seldom communicate, for the old intimacy has faded. Love is gone. The kids don't remember me and I feel like an outsider: this HP Portable appeared in my life like a small miracle instead of



growing logically from devices and concepts that are a part of me. In the S-100 days, I knew the vendors, the chips, the bus timing; today I'm as amazed by this machine as is the little Mexican kid looking over my shoulder in this seedy San Clemente laundromat.

This first struck me in Lake Charles, La. I was staying with Paul Radzinski, the first person to issue an electronic mail invitation for my hospitality database. I arrived 4,800 miles into the trip, only a few days after he got his Macintosh. "You want to give it a try?" he offered, with a wicked grin and a gesture toward the gleaming Mac. My heart was racing.

I sat down and started tinkering with the little gem — my old sweetheart in sexy new clothes. I felt jealous, wistful, almost hurt. She had matured since the good old days; she had lost her baby fat and become worldly. There was an ache in my chest and a helpless sense that she had moved into the fast lane even as I was lazily drifting along the shoulder on my bicycle. We were in different worlds and were destined to grow still further apart. Perhaps we could meet for coffee every few months . . .

"Damn, you're beautiful," I whispered, tinkering with her fonts and pulling down her special features menu. She danced at my touch, smooth and responsive, her cursor moving precisely as I manipulated her mouse. Teasing me, mercilessly teasing me. "What are you doing in Paul's bedroom?" I thought with a small red flash of rage. I was agitated, breathing rapidly — I felt like I had been invited for dinner at a friend's house, only to discover that his blushing young bride is someone I have been in love with for years.

I suppose I should accept this as one of the costs of the journey: I can't have it all. I have eloped with the Other Woman the Road — a lady of infinite variety. I suppose I've burned all my bridges by now. The divorce is final.

So I'll just pedal on down that sweet asphalt with my slick HP, gathering realizations, watching the world float by and reminiscing now and then about that old 7-level internal stack of the 8008 . . .

*Steve Roberts publishes a more current account of his adventures in a CompuServe database (GO CAA for details). His CompuServe User ID number is 70007,362.*

# Online Support for Software Users

Labeled as innovative, cost-effective and convenient, online support is becoming a valuable means of interaction for software companies and end-users. Lotus, Borland International, Digital Research and MicroSoft are providing user support through online forums on CompuServe. There is an independently-run forum for MicroPro products. In addition, Commodore, Epson and Hewlett-Packard have software sections in their online forums.

The professional software support groups enable users to access each company's technical support staff 24 hours a day, seven days a week.

"The forums are intended to be clearinghouses for information," says Alex Crosett, manager of product planning for Lotus and a forum administrator for the Lotus 1-2-3 and Symphony forums on CompuServe. Crosett says Lotus put its forums online "to provide a vehicle for information, assistance and updates, and to encourage interaction between users or anyone interested in Lotus products."

As an alternative to a toll-call to the customer service departments of these companies, users are finding the forums cost-effective, convenient and less frustrating. "Users find value in a 24-hour turnaround (to their inquiries) without paying to wait on hold for 10 to 15 minutes," says Crosett. Borland forum user Kent Stewart, a former field site representative for a Dallas computer company, says, "You can't get a good example over the phone. It takes too long and no one gets the answer right."

Online support also bridges the gap between time zones. "I always seem to have a software problem when the west coast offices are closed," says Bob Wooster, a Borland user from Connecticut. Digital Research forum administrator Joe Byrd agrees, "Programmers have a tendency to work odd hours. Immediate access 24 hours a day allows them to interact with us on their schedules."

### Learning from fellow users

The forums also enable users to obtain assistance from each other. "The forum is a meeting ground for users who have similar problems, and it is a good place to share specialized expertise," says Byrd, adding that he is impressed by the helpfulness of users online.

While product support groups are forced to generalize in answering a range of technical problems, other users can often provide more specialized assistance. The forums tap into the intellectual resources of their members. "We have some real technical gurus online, in addition to product support," says Crosett.

"Another aspect of online forum help," says Wooster, "is that it can alert you to problems you haven't run into yet." Inquiries and responses are posted on the software forum message boards for a week to 10 days so users can add to the information — benefitting both the users and the company. Users may find their questions already answered online. The company's technical support person can easily inform many users with a single response to a software problem message.

### 'Messaging with many'

Borland forum administrator Larry Kraft says this aspect makes the online forum a valuable customer support tool. "I see the forums as a strong supplement to telephone support, as the number of products and customers expands," he says. "In addition to supporting the customer, the forum method of communication relieves phone lines and allows us to reach a few hundred users at a time."

"Videotex enables us to provide more answers to more users with fewer support people," says Byrd. "Our technical support people on the telephones are highly trained, and we cannot have as many of them available." Byrd adds that the "one-on-many" communication provided on CompuServe is also less tiring on the support person than the one-on-one telephone assistance method.

"Messaging with many," as Byrd calls forum support, increases the efficiency and accuracy of assistance by eliminating repetition and minimizing errors. The cost of phone lines, even if the user is picking up the tab for a toll-call, and the labor cost of providing assistance to users are drawbacks to that traditional means of user support.

Lotus is promoting use of its online forums by including a CompuServe subscription offer with its Symphony software packages. According to Crosett, the Lotus videotex menu options and the forums enable users to get more out of their Lotus products.

### Programs for downloading

Lotus, Borland and Digital all use the data libraries in the forums to store programs and patches for users to download. Some features, such as Digital's GEM graphics interface, are available to users only through downloading from the data libraries.

In addition to providing online message boards and offering programs, software support professionals are "talking" with their users in the forum conference areas. Administrators Larry Kraft and Bela Lubkin began regular Saturday conferences in March in the Borland Forum, and Lotus frequently has Wednesday evening conferences in its Symphony Forum. Conferences may be general or specific topic discussions with the forum administrators, and guest speakers are sometimes scheduled.

Interaction between the users and the company is what Kraft calls the "sounding board" quality of the forum. "The forum allows us to obtain input from the software users." And input from users is what helps companies to continue improving their software.

*— Mary Ellen Stone*

# A Closer Look at Digital, Lotus and Borland

**Digital Research**

Digital Research was the first software company to use videotex for customer support, and the Digital Research Forum has served as a model for other professional software forums.

Forum Administrator Joe Byrd says, "We are definitely committed to what we are doing on CompuServe. Our customers are pleased with what they find online."

The Digital Research Forum supports a few thousand members, and Byrd expects to see a sharp increase in usage with the addition of the GEM support interface online. Three technical support representatives are online daily and a dozen or more are available for back-up.

All technical support information and patches for Digital software users are placed online by the company. Digital's graphic interface, GEM, is supported by a dedicated area of the forum. Its addition to the service doubled user access of the forum in one month. Various computer users' groups throughout the United States are using the Digital Research Forum as a central communication channel for meetings, newsletters and messages.

Digital also uses videotex to provide support for its professional programmers and engineers who work in the support center. "Programmers can send their files in for review and testing," says Byrd. Field engineers also respond to user inquiries on the message board. To access the Digital Research Forum, type GO PCS-13.

**Lotus**

The World of Lotus includes a videotex database and two user forums, one for users of Lotus 1-2-3™ and another for Symphony™ users. A forum for Jazz™ users is in the planning stages.

The data libraries contain material from Lotus and from forum users. Lotus' contributions have included a worksheet decoder, add-in applications to assist users converting from 1-2-3 to Symphony, and "drivers" to provide support for new or additional peripheral equipment. Forum users have contributed templates and macros for a variety of applications.

The World of Lotus database includes product descriptions, answers to frequently asked questions, technical tips and other information relating to Lotus and its products.

"People who go online are already users, sometimes experts," says Alex Crosett, a forum administrator for the Lotus 1-2-3 and Symphony forums. "The interaction available in the forums makes the people better users and keeps them using our products effectively."

Crosett says the Lotus forums have evolved from what was originally a test into what is now a committed part of the company's product support. Six product support employees respond to messages online, test programs uploaded to the data libraries and lead conferences. Lotus keeps record of users' comments and "wish lists" for product development.

The recently published *Lotus Guide to Learning Symphony* includes step-by-step instructions on how to use Symphony to access CompuServe and refers to a special page in The World of Lotus videotex database that users can access to practice capturing such data as stock prices.

Lotus also provides its dealers with CompuServe demonstration User ID numbers so that they can become familiar with the communications functions of the software and assist customers in using The World of Lotus.

"We are also starting to encourage a lot of individual conferencing and will begin scheduling regular conferences for novice and expert users," says Crosett. A recent conference, for example, discussed how to use Symphony to capture messages and compose replies offline for later transmission. Conference topics and schedules are announced in the forum bulletins online. To access the Lotus Forums, type GO LOTUS.

**Borland International**

Borland International is establishing rapport with its Turbo Pascal™ and Sidekick™ users through active messaging and conferencing online. Regular Saturday conferences offer a lively exchange of information on new products and programs. Forum administrators Larry Kraft and Bela Lubkin lead the discussions. Scheduled topics are posted on the forum's message board.

In addition to providing a communications link for users, Borland offers program patches uploaded to the forum's data library. Borland user Bob Wooster considers the availability of Borland-supported program patches for both Sidekick and Turbo Pascal the main advantage of the forum. Forum administrator Lubkin adds that many patches are also uploaded to the data library by other users.

Response to the Borland forum has been favorable, according to Kraft, who says the forum has 2,000 to 3,000 members and is accessed about 200 times a day. Kraft says the existence of the forum is evidence that the company providing the products is user-friendly and willing to stand behind what it sells.

The Borland forum is one option on the Borland menu. It also includes notes from the company's president, Philippe Kahn, a technical support area with standard questions and answers, a news items column and a narrative on the company's alleged namesake, Frank Borland. Type GO BOR to enter the Borland community.

*— Mary Ellen Stone*

lotus
SEARCH
1
International
2-3

## What's Inside the Electronic Mall

For a gift for the graduate on your list — or for yourself — visit The Electronic Mall's Personal Computer Store.

At Computer Express, CompuServe subscribers can buy software for the Apple II; IBM PC, PC-XT and PCjr; Commodore 64; and Macintosh personal computers. Titles include Word Writer and Home Accountant for the Commodore, Spanish for Travelers (for IBM) and a line of trivia game software packages for the Apple II. If you have suggestions on software you would like Computer Express to carry, type GO CE and leave your comments under menu choice 7.

Grolier Software publishes two software series that are compatible with the Apple II, IBM and Commodore computers. The Grolier Home Power Series includes Friendly Filer, Friendly Files and Easy Graph. Used with Friendly Filer, each Friendly File is designed to teach basic computer research skills and offers comprehensive tutorials.

*Treasure Hunter* and *Secrets of Science Island* are the two titles offered in Grolier's Adventure in Knowledge Series. These computer adventure games help users learn facts about science. Grolier's software is designed for ages 8 and up. Electronic Mall shoppers receive a 10 percent discount. GO GE.

Pioneers in the design of electronic products in kit form, the Heath Company offers build-it-yourself products in computers, amateur radio equipment, test instruments, television security, self-study educational courses and personal robots. Heath's Online Catalog lists more than 400 kits for home, leisure and business. GO HTH.

An authorized Radio Shack dealer, Marymac Industries specializes in TRS-80 computers and peripherals. Marymac's online store offers package deals on hardware and accessories for Electronic Mall customers, as well as online specials each month. Prices in The Electronic Mall include shipping and handling; many are lower than Marymac's regular mail-order prices. GO MM.

Misco is a leading vendor of computer supplies and accessories, offering diskettes and cassettes, print elements and ribbons, workstation accessories, paper, labels, electrical and power products. CompuServe subscribers can order from Misco's 100-page printed catalog online. GO MO.

Sears Computerware features hardware and software for Atari, Casio, Commodore, IBM and Apple personal computers. Their software selection includes games and programs for home and office. Commodore hardware includes joysticks, printers, disk drives and portables. GO SR.

### AUTO SHOP

**BU** Buick

### BOOK BAZAAR

**WB** Waldenbooks
**RP** Rodale Press
**MH** McGraw-Hill
**BB** Bantam Books

### FINANCIAL MART

**MET** Metropolitan Life
**CN** Colonial National Bank
**MU** Max Ule & Co.
**SI** Select Info. Exchange
**EL** Equitable Life

### LEISURE CENTER

**MV** Magic Castle Video
**AO** American Outdoorsman
**SB** Stark Brothers Nursery

### MERCHANDISE MART

**KO** Eastman Kodak Co.
**SR** Sears, Roebuck & Co.
**AC** Landmark Contracts

### NEWSSTAND

**ME** Magazine Entree
**CBS** CBS Magazines
**CW** CW Communications
**DJ** Dow Jones & Co.
**US** USA Today
**RP** Rodale Press

### ONLINE CONNECTION

**EF** E.F. Hutton
**VL** VideoLog Electronics
**NN** NewsNet
**HB** Harvard Business Review
**BA** Bank of America
**OA** Official Airline Guides

### PERSONAL COMPUTER STORE

**MO** Misco Computer Supplies
**SR** Sears, Roebuck & Co.
**MC** MCTEL Telecommunications
**CS** Commodore Business Machines
**MM** Marymac Industries Inc.
**MS** Microsoft
**HTH** Heath
**CE** Computer Express
**BI** Borland International
**GE** Grolier Software

### RECORD EMPORIUM

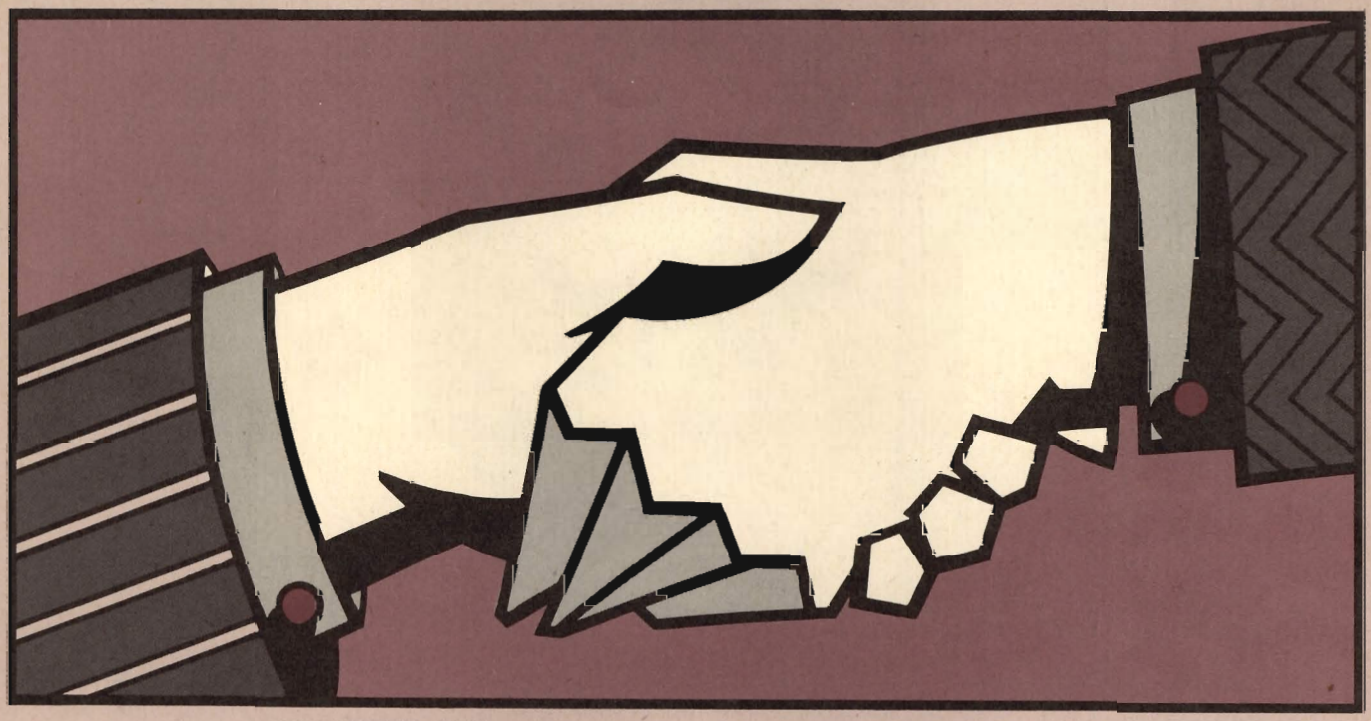
**RW** Record World
**RC** RCA Record Clubs

### SPECIALITY BOUTIQUE

**BL** Bloomingdale's by Mail
**HH** Hobbit Hole/Wyandotte Wines
**VM** VitaMenagerie
**AXM** American Express Shopping

### TRAVEL AGENCY

**AF** Air France
**AA** American Airlines
**WL** Worldwide Exchange
**HS** The Homestead



## PRLINK Offers Networking

Even before the electronic age, professionals in all fields have found networking to be a vital part of career growth. With CompuServe, the Old Boy and Old Girl Networks take on new meaning.

PRLink (GO PSG-9), sponsored by the Public Relations Society of America (PRSA), is CompuServe's latest electronic network and provides fast, efficient access to news and events of the public relations profession.

PRLink contains 11 sections, including PRSA activities, case studies, professional updates, an industry calendar, jobs bulletins, and PRSA Board and committee reports.

The network also boasts a feature that allows users from around the country to meet online to discuss topics of common interest. Gone are the days when such meetings required extensive travel time and costs. There is no limit to the number of people who can attend an online meeting, and all participants have a printed record of everything that is electronically uttered.

According to Ron Solberg, forum administrator of the Public Relations and Marketing Forum, PRSA has been interested in the potential of electronic communication since January 1984, when the association's Communication Technologies Task Force began experimenting with the medium through the P.R. Forum. Monthly meetings of the task force, as well as a successful time management seminar, were held online.

"We wanted to offer professional development and publications online, and we needed the resources of a large professional association, such as PRSA, to do it properly. We're also considering what we can do electronically with training programs to assist with professional accreditation," explains Solberg, who, along with PRSA's Rich Feldman, will serve as forum administrators.

Solberg points out that PRLink is open to all professional communicators, regardless of whether they are affiliated with PRSA. "We hope to cooperate and work closely with other professional public relations organizations in this venture," he says.

In addition to the usual CompuServe connect charges, the annual subscription fee for the service is $35 for PRSA members and $60 for non-members.

To subscribe to this service write PRLink, % Public Relations Society of America, 845 Third Ave., New York, NY 10022, or call 212/826-1755.

*— Cathryn Conroy*

## Financial Data Downloading

A new product for financial data downloading, MQINT, allows downloading of market prices from the MicroQuote, QuickQuote and Commodity databases.

MQINT provides a data retrieval dialogue designed for microcomputer software that automates the downloading process.

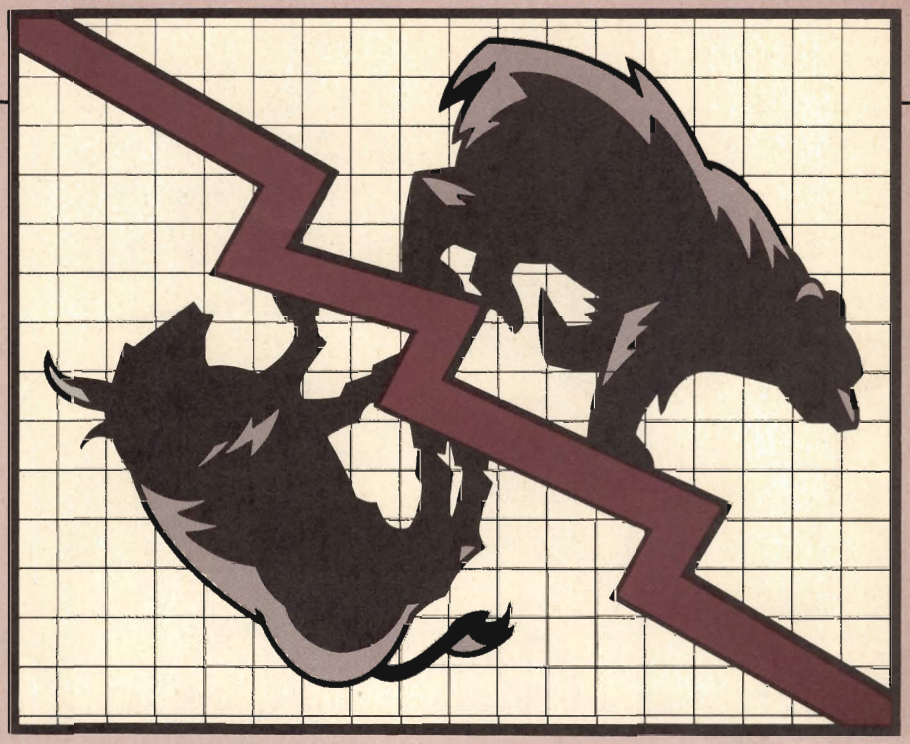
Unlike other online services and products, MQINT assumes a machine-to-machine interaction rather than a human-to-machine interaction. Since the dialogue is "fixed," it can be built into other software. CompuServe intends to keep this dialogue constant so that users need not worry that a change will cause their programs to break down.

MQINT sends the fewest characters necessary to retrieve all the financial information you need. Optional check sums allow your program to verify that all the data was received correctly.

Several different "interfaces" within the program allow you to select either the closing price for a stock or commodity contract, or a full price set of volume, high price, low price and last price. For commodities, open price and open interest are also available. This data can be retrieved for multiple stocks or contracts on one day, or for a series of prices for one stock or contract. For stocks, these interfaces also send an adjustment factor for stock splits, allowing your program to adjust prices already stored on disk.

For more complete documentation on this program, type GO IQH at any prompt on the Consumer Service or GO IQD on the Executive Service. Then, select a keyword search, using MQINT as the keyword. Menu navigation is also available. To access the program, type GO MQINT at any prompt.

— *Paul Stocking*



## Quick & Reilly Opens Brokerage on CompuServe

Quick & Reilly, the nation's third largest discount brokerage firm, is now offering Quick Way online brokerage services through CompuServe's Information Service.

CompuServe subscribers who are Quick & Reilly clients can place orders to buy and sell securities through their personal computers 24 hours a day. Orders placed during normal business hours will be executed immediately. Orders placed during evenings and weekends will be executed at the start of the next business day.

Trade*Plus Inc. of Palo Alto, Calif., a computer service company, is providing the linkage between the CompuServe network and Quick & Reilly. In addition to online brokerage services, Trade*Plus will provide Quick & Reilly customers on CompuServe with current stock and option prices, portfolio management and automatic tax record-keeping.

Direct order entry is available for virtually every stock and option listed in The Wall Street Journal. To place a buy or sell order, the user responds to a series of simple prompts that elicit all the information Quick & Reilly requires.

Users can specify good-till-cancelled or day orders; market or limit orders; delivery instructions for stock certificates; or include any other special instructions. When an order is executed, the user is notified immediately if he or she is connected to Quick Way at the time, or through an electronic message the next time he or she accesses the service.

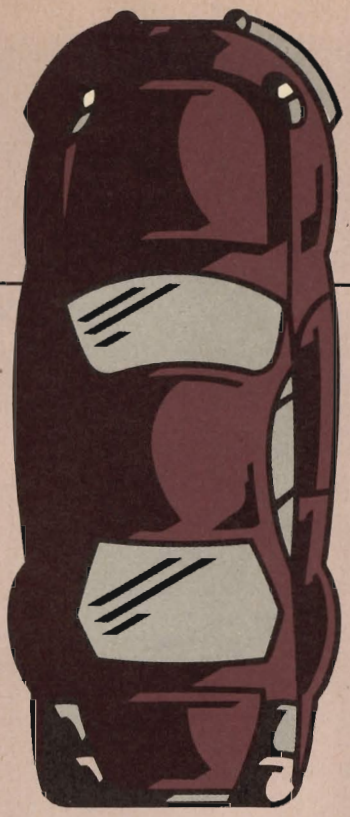
Current prices, likewise, are available for virtually every stock and option listed in The Wall Street Journal. In addition, the service includes mutual fund prices, money fund yields and all of the major market indices. Dividend and price/earnings information is also available.

Portfolio and tax records from Quick & Reilly are always current when users check their portfolios. Several different reports are available so users can determine such things as value and income by security and by portfolio.

In addition to the two-level security system established for all CompuServe subscribers, Quick & Reilly clients will have two passwords to protect the privacy of their transactions.

"We believe there's a great potential for growth in the market for online brokerage services," says Leslie Quick III, vice president of Quick & Reilly. "As more people buy personal computers and become accustomed to using them for banking, shopping and trading stocks, we think there will be a great demand for this service."

# PRODUCTS



**New Car Showroom adds features**

Now, it's easier to shop for a new car on CompuServe. The New Car Showroom now has an index of more than 350 models. New car models can be compared and priced, and users can figure monthly payments. GO ATO

**Phone access program improved**

A new version of the telephone access number program is now available. New features include faster location and display of telephone access numbers and flexibility to locate numbers in a specified area code or city and state. When supplying a city name, only uniqueness is necessary.

State names no longer need to be abbreviated. There are separate displays for 32 and 80 columns. Changes to network access numbers are now available from a menu. Announcements that may affect your city are also included. GO PHONE

**Shareholder Freebies expands**

CompuServe subscribers can find out which British firms offer freebies to their shareholders by accessing a new section in the Shareholder Freebies database. This section focuses on hotel companies whose freebies apply not only in the United Kingdom but also in Europe and North America. The section also includes jewelers, department stores and other businesses.

Companies are now grouped according to first initial. Users may select company names beginning with the letters A-C, D-M or N-Z. This capability is also in the British Freebies section. GO FRE

**Telecommunications in USA Today**

Decisionline/Telecommunications is a new report from USA Today Update. Editors scan the industry's most respected newspapers, trade journals and newsletters to keep you abreast of the latest news, from satellites to developments in fiber optics.

In addition, Decisionline/Telecommunications contains the experts' pick of the best telecommunications investments. Users can compare the success records of companies in the telecommunications business. The report carries an individual subscription of $5 or $10 per month but has no connect time surcharge. GO DEC

**Rainbo Electronic Reviews available**

Rainbo Electronic Reviews is a new database that covers current literature, cookbooks and children's books, as well as computer literature, hardware and software. GO RER

**Two additions to HealthNet**

HealthNet now has a Reference Library section on arthritis and related diseases. With this addition, the HealthNet Reference Library is nearly complete. In addition, the disease section of the Reference Library has been indexed.

A comprehensive Sports Medicine section is now in HealthNet. This section will feature individual sports, specific guidelines on training techniques and information on exercise. GO HNT

**Word Scramble enhanced**

The latest addition to CompuServe's word games is a version of the Word Scramble game that does not require a personal computer with CompuServe's VIDTEX software. Featuring fast screen updates, this game is more exciting when played on a personal computer with cursor control, but it can be played on any personal computer. GO GAM 43

## Update-d Gift of Time

*Online Today* offers subscribers the chance to write a 200-word essay on how they use CompuServe's Information Services.

Your essay should be typed double-spaced. Send it to *Online Today*, CompuServe Incorporated, 5000 Arlington Centre Blvd., P.O. Box 20212, Columbus, OH 43220, or by an Email message to 70003,1661. Please include your full name, address and User ID number.

Should we use your column, you will receive 10 hours of standard service connect time (a $60 value) and a by-line.

**IBM Novice Forum assists user**

Armed with my first modem, appropriate software and knowledge acquired from a review of documentation, I began my initiation into telecommunications through CompuServe.

Fortunately, my first connection was with CompuServe's IBM Novice Forum (GO PCS-129). I did little more than page through the message board on my first visit; yet, by the time I logged off, I had picked up many worthwhile computing tips. During other online sessions, I learned from the reported mistakes, advice and questions of other members of the IBM Novice Forum.

Somewhat discouraged after my first attempt at downloading, I left a message for the forum administrator. In no time, he had diagnosed my problem and offered assistance.

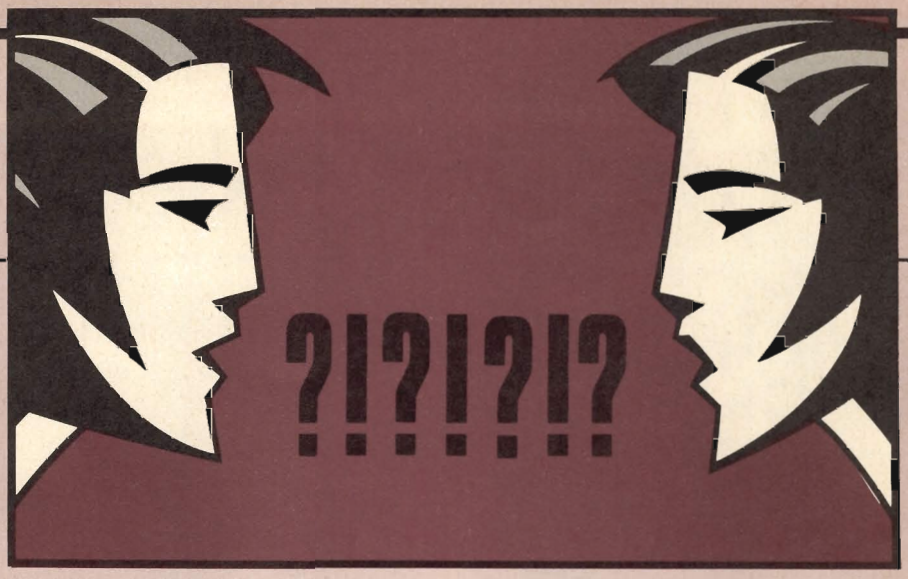
While I have explored other areas of CompuServe's Information Service, my first stop is always at the forum on which I started. I know that the answer to any problem I encounter is but a message away from a host of experts who have come this way before.

J. P. Van Landingham
Mt. Pleasant, S.C.

## What's Going On?????

If you want to know what's going on around CompuServe, check into the *Electronic Edition* of *Online Today*. Here you'll find constantly revised news for and about the CompuServe community. GO OLT from any prompt and choose "CompuServe Update" from the main menu.

Online TODAY
ELECTRONIC EDITION




## Answers From Customer Service

**Q: I need some help using the CB Simulator!**

A: Here are four ways you can get information on how to use our CB Simulator:

1. Type CB at any prompt on the Consumer Service and choose "Instructions" from the menu.
2. Access one of the CB Bands, enter your handle and make a channel selection. Then type /HELP.
3. Access one of the CB Bands as above and ask someone on your channel for help. Most CBers are friendly folks and eager to help newcomers.
4. Order our Consumer Information Service User's Guide (enter GO ORDERS at any prompt). It has a section on the CB Simulator.

**Q: After logging on to the Information Service, should I enter my password whenever a password prompt appears?**

A: No! Remember to enter your password *only* after hanging up your telephone and redialing your local access number.

**Q: What command can I enter for more documentation on CompuServe's online investments and quotations?**

A: Enter GO IQH at any Consumer Service prompt, or GO INVESTMENTS within the Executive Service, for online documentation and surcharge schedules. Also, you may want to order the Microquote User's Guide, which is available from our online Product Ordering area (GO ORDERS). The guide includes many details on the financial databases and services currently offered.

**Q: My terminal width is set to 80 columns for the Consumer Service, but the display formats at 32 characters across!**

A: Setting your column width through the terminal settings area (GO DEFALT) does not affect the menus. However, you can use the SCROLL command to receive the full 80 columns on text pages.

At the prompt, type S and then press your space-bar once. Enter your menu selection and press the carriage return. The text will scroll at 80 characters across.

**Q: When I got an NTWCPR message, my keyboard froze, the display stopped, and I could not leave the system.**

A: You received an error message from CompuServe's Network Services, indicating that we could not route your signal across the present network of phone lines. In such a case, CompuServe will try to restore service by interconnecting through other cities — a process transparent to your terminal. If we can reconnect, within the next few minutes you will receive the prompt, "Enter CONTROL-Q to continue." If not, hang up your telephone and redial at a later time. Unless you reconnect your job by entering CONTROL-Q (press your control key and Q at the same time), your charges stop at the moment you received the message "NTWCPR."

## Changing Your Password

The CompuServe Information Service urges its customers to change their password(s) at least once a month.

The password should be at least eight characters comprised of two unrelated words separated by a symbol, for example: HOUSE*MAGNET.

It never hurts to be safe, but almost always hurts to be sorry. By changing your password *frequently*, you eliminate the risk of someone else illegally using your account.

CBNEWSLETTER

A Publication for CB Simulator Participants — Editor Patricia Phelps

# ELECTRONIC CONFERENCING ON COMPUSERVE . . . IT'S A LOOLOO!

## INTRODUCTION

The CB Simulator is CompuServe's electronic conferencing facility. With CB you can have real-time conversations with other users from all over the country simply by typing on your microcomputer or terminal.

There are many practical uses for the CB Simulator, such as business conferences and networking. It is also an easy and inexpensive way for disabled people to communicate. No matter what our background or where we are located, the main reason we use CB is that it is just plain fun!

Think of CB as a computerized party line, with maybe two dozen or so people typing away to each other all at once. And the diversity is amazing! There are students, lawyers, pilots, doctors, engineers, housewives, programmers, writers, all ready to welcome you from the moment you first access CB and type, "HELLO, I'M NEW."

## HOW IT WORKS

There are two bands of CB, Band A and Band B. Either can be reached from the main CB menu (type GO CB at any prompt). Or, to get directly to Band A, type GO CB-1 at any prompt; to get directly to Band B, type GO CB-2.

When you first access CB, you are asked for a handle. You can use any handle (name) up to 19 characters long, except for a few that are reserved. Please be sure to use good taste.

You then are told how many people are on each channel (there are 36 CB channels on each band). For example:

*(1)7,(19)3,(36)2*

means that there are seven people on Channel 1, three people on Channel 19 and two people on Channel 36.

There are a few mutually understood channel assignments: Channel 1 is the adult channel ("Adult" is not intended to mean pornographic.), Channel 17 is the teen meeting center, and Channel 33 is the alternative life styles channel. If you choose one of these channels and don't feel comfortable with the conversations taking place, please move to another channel.

You are asked which channel you want to send and receive messages on. This then becomes your active or "open" channel.

From this point you can start transmitting. No message line you type can be longer than 80 characters. The system automatically displays your handle, followed by your message. For example, if your handle is MEGAMORRIS, you are on Band A, Channel 6. If you type HIYA!⟨enter⟩, your message is seen by everyone else on Channel 6 as:

*(A6,MEGAMORRIS) HIYA!*

If the channel you first choose is a little crowded, things may be scrolling up your screen too fast for you. Use the /TUNE command to move to a less crowded channel, or try the other band.

If you tune to what you know is an empty channel and a message line pops up on your screen, that is a "ghost" message left by the last person who transmitted on that channel before leaving. Ghost messages eventually disappear, but have been known to confuse a new user.

A word to speed typists. To prevent buffer dumping by anyone on an open channel, the system times your transmissions. If you enter a few short lines in rapid succession, the system may think that you are dumping a buffer and stop any further messages from you. If other users stop reacting to your messages and you suspect you have "auto-gagged," /EXIT from CB and then reaccess the program.

## JOB RECOVERY

If your network connection to one of our CB Simulator bands experiences difficulty, you may receive an error message, followed by the instruction to type a Control-Q to continue. After you type a Control-Q, a successful reconnection will be indicated by the message "Glad We Could Get You Back!" If your connection cannot be restored automatically for some reason, you will have to redial and access the CB Simulator again.

## AUTOMATIC LOG-OFF

If you fall asleep at your keyboard (as sometimes happens) or you are distracted and forget to log off, your job will be logged off automatically one hour after you stop input. In other areas of the service, you are logged off much sooner, but we know that some of you prefer to sit back and lurk on CB rather than participate in the conversation. (If you want to lurk for more than an hour, just be sure to type something every once in a while, like maybe a /STATUS command.)

## FINDING SOMEONE

Have you been looking for love in all the wrong places? It can be very exasperating to go through a /USERS listing over and over, especially when there are lots of users on the band, when all you want to do is find a special friend. Now, if you remember that person's User ID number, you can use the /WHERE command to find him or her. That person's one line from the /USERS listing is displayed to you, or you are told that the person isn't on the band at this time. For example, typing /WHERE 70006,522 might show you:

*26 70006,522 CSG 8 LooLoo*

*LooLoo is Patricia Phelps, CompuServe's Manager of Electronic Conferencing Products.*

## HOPPING

From within the CB Simulator program, you can issue a /GO command to hop quickly to another area on the service. Areas of particular interest to CBers are:

*/GO EASYPLEX* — Takes you to the electronic mail service where you can write a letter to that special person you just met on the CB Simulator.

*/GO CUP* — Takes you to Cupcake's CB Society Column, where you can read the latest party news, interviews with CBers and chatter.

*/GO CBIG* — Takes you to the CB Interest Group, where you can read general messages and CBers' personal profiles, and download many helpful programs.

*/GO PHONE* — Takes you to the phone search program, where you can look for new telephone access numbers in your area (both 300 and 1200 baud).

*/GO FEEDBACK* — Takes you to the CompuServe Feedback program where you can ask questions, file a complaint against an abusive CBer, etc.

## PAGING

Hate to just sit and cool your heels while the person you really want to talk with is in /TALK with Mad Herman from Newark? Now you can page that person and let him/her know that you are on the band. For example, if I am job 13 and Mike is job 37, I can enter /PAGE 37 and Mike will see:

*Job 13 [70006,522] LooLoo is paging you!*

What if Mike doesn't want to be paged during his /TALK? All he has to do is type /NOPAGE before he enters a talk and no one can interrupt him. (He then either does a /PAGE to someone else or a /PAGE without a job specification to turn his own paging back on at some point.)

## YOUR PASSWORD

NEVER give your password to anyone! No one needs it to go into a private /TALK or scrambled conversation with you or to send you electronic mail.

## ONLINE BEHAVIOR

If you want to be known on CB, you can be. If you don't, you can connive, deceive and concoct. You are judged by the other users on your wit, creativity and lucidity. Or, you are judged on your obscenity, harassment and disruption.

Innuendo can be charming; blatant obscenity is not. Generally, handles are subject to more scrutiny than are public channel messages, as they appear in a /USERS listing that can be seen by everyone on the band, not just by those tuned to the same channel. Using an obscene handle or stealing another user's handle is unacceptable.

Use the language you would at a cocktail party or school function, depending on your group. We all use certain off-color words from time to time, but don't get carried away. Most users adopt the "missing letter" convention when they want to use certain expletives on an open channel (OH SH*CKS!).

## CB COMMANDS

All CB commands begin with a forward slash character (/) and can be abbreviated to the first three characters. Anything you enter without a forward slash is sent as a message over CB.

*/TUNE channel* — Hops you from the channel you have been using to the specified channel (1 through 36) where you now can send and receive messages. For example, /TUN 8.

*/MON channel,channel* — Monitors up to two channels. You may transmit on only one channel, but also see the messages being sent on those other channels. For example, if you are on Channel 1 and you enter /MON 2,5 your screen will show the transmissions other people are sending on Channels 1, 2 and 5, while you transmit only on Channel 1.

*/UNM channel,channel* — Stops the monitoring of the specified channel(s). For example, /UNM 2.

*/BAND x* — Moves you from one band of the CB Simulator to another, where x is either A or B.

*/STATUS* — Displays the number of users on each channel (similar to the display you see when you first decide on a channel for transmission). The channel you are on is indicated by a # sign and any channels you are monitoring are indicated by a *.

*/USERS* — Displays a list of all User ID numbers tuned to the same CB band as you, their job numbers, the channels they are transmitting on, their access city nodes and their handles. It also indicates whether or not they are using the private /TALK area. To stop a long user listing, type a Control-O. To "skip" down a listing, type a Control-P as many times as you wish (several user lines at a time will not be shown).

*/USERS channel* — As above, except user status is displayed only for the specified channel. For example, /USERS 36.

*/WHERE job* — As above, but only for the person with the specified job number.

*/WHERE ID* — As above, but only for the person with the specified User ID number.

*/WHO* — Displays the handle and User ID number of the last person who transmitted on your channel.

*/UID* — Causes the User ID number of each person on open channel who sends a message to be displayed on your screen along with their handles and messages.

*/NOUID* — Turns off the display of User ID numbers on open channel messages.

*/HANDLE handle* — Changes your handle (use 19 characters maximum).

*/SQU handle* — Squelches (stops) messages to your screen from the person with the specified handle. Even if that person changes his/her handle after you enter this command, you still will not receive his/her messages. You must enter this command within three messages of the person you wish to squelch. For example, /SQU MURPHY.

Sending repeated macros of text is most annoying and disruptive, as is line after line of tabs.

If a user bothers you, use the /SQU or /SBU command to block that person's transmissions to your screen. If you feel the situation warrants, send CompuServe a Feedback complaint (be sure to include that person's User ID number).

There are several actions CompuServe may take, depending on the offense: send that user a warning (online at the time of the offense, or by electronic mail); stop that user's ability to transmit messages; or suspend that user's account indefinitely.

## BEHIND CLOSED DOORS

On an open channel, whatever you type may be seen by everyone else on that channel, as well as by anyone on another channel who is monitoring your channel.

If you want to discuss something privately with more than one other user, use one of the scramble commands. Be aware, though, that someone in your scramble group may enter the command incorrectly and let others see it (?SCR EGGS . . . OOPS!). Also, the algorithm used in the CB Simulator program isn't exactly up to NSA standards; it is possible that a good cryptologist out there could figure it out. CompuServe does not guarantee the sanctity of scrambled conversations.

If you want a totally private conversation with one other person, use /TALK. No one, including CompuServe, can watch your /TALK conversation. (If you are plotting a takeover of the world, this is the place to do it.)

A final thought: Any conversation is only as private as the people involved in it choose to keep it.

## SPAM ACTORS

Lately, there has been some spontaneous role-playing taking place on CB: Aussie Tag Team mud wrestling, Scandinavian Hospital, Pool Parties and Spam Night. (Spam Night???)

My favorite handles on Spam Night were: Spam Spade, Spamela, Spammy Davis Jr. Wam Spam Thankya Mam, Kobayashi Spamaru, and Lucia de'la Spam.

Whenever you see some role playing going on, change your handle to suit the situation, and jump right in!

## THE HOUSE THAT CB BUILT

Many folks on CB refer to it as a hotel. Each channel is considered to be a floor (Channel 1 is the lobby, Channel 36 is the penthouse). Of course, one takes the elevator to go up or down.

A request to go to the private /TALK area often is phrased, "Join me on the balcony?" or "I'm in room 58, dear."

Channels are decorated as the current inhabitants see fit. Sometimes they move in with only a six-pack of beer, sometimes they hang curtains and roll out bearskin rugs. (Watch out for LooLoo; she keeps trying to put a pink flamingo on the lawn!)

Check in! Register at the desk, find a floor to your liking and join the fun.

*/SBU ID* — As above, but squelches an abusive user's transmissions to your screen based on his/her User ID number. You don't have to be quick to use this command. For example, /SBU 70003,1403.

*/SQU* — Cancels any and all squelching you have done.

*/JOB* — Shows you your job number.

*/TALK job* — Removes you from open channel and places you in a private area where only you and one other user can send and receive messages. If you do not enter a job number with the command, you are asked for the job number of the person you wish to talk with. The other person will receive a message that you wish to talk. That person then must enter the /TALK command with your job number to complete the linkup. When you are in contact with this person, no one else can see your messages to each other. To leave the private talk area, type a Control-P (CB commands do not work in Talk).

*/SCR code* — Causes your transmissions to be scrambled, that is, only readable by other users who have entered the same command with exactly the same scramble code. This is useful when you want to have a private conversation with more than one other user. For example, /SCR MYSECRET.

*/UNS* — Stops the scrambling of your messages. Anything you type after this command will be readable by all users on your channel (as well as by anyone else who is monitoring your channel).

*/SMC code* — Means scramble and monitor clear. You enter this command when you want to see messages from those users who are not scrambled and at the same time communicate with those who are scrambled.

*/XCL code* — Means transmit clear. You enter this command when you want to monitor the scrambled conversation while still communicating with those who are not scrambled.

*/PAGE job* — Sends a private announcement to the specified job number. Use this command to let someone in /TALK know that you are waiting for him/her. You also can page someone who isn't in /TALK (for example, /PAGE 37).

*/NOPAGE* — Means that you do not want anyone to be able to send you a page.

*/PAGE* — Turns your paging back on if you had it off (with a /NOPAGE command). Also, if you do a /PAGE job, your paging is turned back on.

*/EXI* — Exits CB and returns you to the CB main menu.

*/GO page* — Exits CB and takes you to the requested page on the service (for example, /GO HOM-9).

*/OFF* — Exits CB and logs you off the service.

*/DAY* — Displays the current local time, day and date.

*/HELP* — Gives you an online CB command summary.

## CONTROL CHARACTERS

There are several control characters you can use within the CB Simulator program. Control characters are entered by holding down the control key and pressing the desired letter key. You don't have to press a ⟨CR⟩.

*CONTROL-V* — If your typing seems to run together with what other people are sending (when several people are on the same channel, messages do tend to scroll rapidly), you can use Control-V to redisplay the line you are typing before you finish it and press the ⟨CR⟩ key to send it. You may have to try Control-V more than once before it works, if output to your screen is quite heavy.

*CONTROL-U* — Use Control-U to erase a line and start over. (Of course, once you press the ⟨CR⟩ key, everything you have typed is transmitted).

*CONTROL-P* — Within the private /TALK area, Control-P breaks the talk connection and returns you to open channel. Within a long user status listing (where you have used the /USERS command), Control-P causes a "skip" of several lines down the list.

*CONTROL-O* — If you are looking through a long listing and wish to stop it and return immediately to the open channel, this will stop that listing. If you are on an open channel and output to your screen is scrolling so rapidly that you can't get a word in edgewise or enter a command, Control-O will halt all of that output for a second or two. You will lose whatever messages are being sent during that short time, but you will get a "breather" and you then can type in a message or a CB command.

*CONTROL-C* — This does a quick exit from the CB Simulator and returns you to the CB main menu. Even if you are in a private /TALK, Control-C will do this.

Control characters and the Escape key are translated to carriage returns on open channel (except for a Control-C to exit CB, and Control-I to set a tab). Within /TALK, most control characters perform their usual functions (Control-G rings the computer's bell, Control-L causes a screen clear or several line feeds, etc.).



# "CB" SEMINAR & PARTY

## FRIDAY & SATURDAY

## JUNE 21 & 22, 1985

## AT COLUMBUS, OHIO

## UNIVERSITY HILTON

**TICKETS**
$50 each

**AGENDA**
**Friday, June 21, 1985**

6 p.m. - Midnight

Meet and mingle with other CBers as they arrive. Munchies will be provided and there will be a cash bar (starting at 9 p.m.).

**Saturday, June 22, 1985**

9 a.m.
Registration, coffee

10 a.m. - Noon
Presentations on CB, the CompuServe Network and Games

Noon - 1 p.m.
Deli buffet luncheon

1 - 4 p.m.
Minibus tours to our Dublin computer center, software and hardware demonstrations, marketing focus groups

6 p.m.
Cocktails (host bar)

7 p.m. - Midnight
Dinner
Cash Bar
Drawings for door prizes: Grand Prizes include a Hero Robot from Heath/Zenith and $600 in usage credits from CompuServe! Entertainment and dancing, with music by the group Cheers!, and a Laser Light Show by Laser Systems Development!

**ORDER YOUR TICKETS NOW!**

Send $50 (check or money order, payable to CompuServe) to:

CB Seminar
Attention: Pat Phelps
CompuServe
P.O. Box 20212
Columbus, Ohio 43220

Include your name, address, CB handle and User ID number. Your tickets will be mailed to you. (No refunds for cancellation after June 8, 1985.)

**HOTEL ACCOMMODATIONS**

Make your own arrangements for overnight accommodations, if needed. A block of rooms has been reserved at the University Hilton Inn, Olentangy River Road, Columbus, Ohio. Singles are $40/night and doubles are $46/night. Contact your local Hilton Inn to make your Columbus reservations via (what else?) computer.

# Why shop in stores when you can enjoy the outdoors?

Stores close. The Electronic Mall never does.
So if you want to sun, swim, surf or just sleep in a hammock,
shop by night. Shop at midnight. Shop before breakfast, shop after Sunday brunch.
Shop the Electronic Mall.
Spring is here. Summer's coming.
The outdoors is waiting.
So is the Mall.

THE ELECTRONIC MALL

A service of CompuServe
and L.M. Berry & Co.
875 Third Avenue
New York, NY 10022

To open a Mall store
call 212-223-2424

# The Compaq Deskpro Gives More Than Just PC Compatibility

Compaq Computer Corp.
20333 FM 149
Houston, TX 77070
713/370-7040

**Computers:** Compaq Deskpro (IBM PC and PC-XT compatible).
**Operating System:** Compaq MS-DOS or IBM PC-DOS (version 2.xx).
**Features:** Four models include 128K RAM with one 360K diskette drive, 256K RAM with two diskette drives; 256K with one diskette drive and one 10MB fixed disk; and 640K with one diskette drive, one fixed disk and one cartridge-tape backup system. All feature IBM-PC compatibility, two processor speeds and standard PC keyboard layout. All include a 12-inch Compaq dual-mode desktop monitor (amber or green), parallel printer interface and interface connectors for external RGB or composite monitors.
**Options:** 128K RAM upgrade ($170), 512K RAM upgrade ($1,295), additional 360K diskette drive ($430), 10MB fixed disk drive ($2,280), 10MB fixed disk drive tape backup ($1,075), asynchronous communications clock board ($150), desk-saver stand to store keyboard under system unit ($50), tilt-and-swivel stand for monitor ($50), additional 12-inch dual mode amber or green monitors ($255), and MS-DOS version 2.xx with BASIC ($60).
**Model Tested:** Basic Model 2 Deskpro with 256K RAM on system board, two DSDD diskette drives, Compaq dual-mode amber monitor and parallel printer interface. Expanded by 384K STB System's RIO Plus II multifunction card to provide 640K total RAM two serial interface ports, a second parallel port and clock/calendar; further expanded by an IOMEGA 20MB dual-drive Alpha-10 Cartridge Drive Subsystem (Bernoulli Box) and an Amdek Color 700 RGB monitor. Running Compaq MS-DOS 2.02 and IBM PC-DOS 2.10.
**Base Prices:** $2,495 for Model 1, $2,995 for Model 2, $4,995 for Model 3 and $7,195 for Model 4.

*Reviewed by Ernest E. Mau*

Compaq Computer Corp. has been adept at providing machines with nearly perfect PC compatibility, but that work better, faster or more conveniently. A reputation for quality and performance established by the Compaq Portable and its Compaq Plus sibling have carried through to the Deskpro computers.

This is strictly a desktop machine. It's available with 128K to 640K of system-board RAM and can have from one floppy drive to a floppy, fixed disk and tape backup. I chose a Model 2 with 256K and two floppy drives, adding third-party expansions to match my particular needs.

The Model 2 fills two of eight expansion slots with its standard equipment, leaving six slots free (Models 3 and 4 with fixed disk and asynchronous communications/clock fill four and have four free). Slot 8 is a short slot intended for Compaq's communications/clock or other specially designed board, not for general-purpose expansion. Slot 1 appears blocked by the chassis framework, but is accessible with a little care. Disallowing slot 8 and using today's high-capability multifunction cards, five spare slots should be adequate for most users.

The biggest ongoing thrill has been the Deskpro's speed. Its 8086 microprocessor can run at 7.14 MHz compared to the 4.77-MHz 8088 processor in a PC. It also uses a 16-bit data bus compared to the PC's 8-bit bus, yet it's designed to communicate with expansion cards intended for an 8-bit bus. These and other internal differences let the Deskpro live up to its claim of running from two to three times faster than a PC.

Actually, the Deskpro can use either of two speeds. The 4.77-MHz "common" mode handles programs with critical timing or situations like games where higher speed might not be wanted. Speed toggles on by pressing CONTROL-ALT-BACKSLASH and is shown by a red ("common") or green ("fast") front-panel indicator. Speed can be changed on-the-fly even while running a program. I've tried several hundred commercial and public-domain programs, and all worked at both speeds. Occasionally a program will load and run at either speed, but won't allow switching speed after loading. However, there are very few of those so it's not a major problem. Even communication programs that drive modems work at the higher speed.

Notably, the computer always starts up or restarts at the slower speed. I have not found a way to force it to boot directly into the fast speed. Thus, it's easy to forget to speed it up until it dawns on a user that operations seem sluggish.

The Deskpro has eight internal switches accessible only by opening the case. One switch is always on. Another indicates whether an 8-MHz 8087 coprocessor is installed. Two more set the system memory for 128K, 256K or 640K, but apply only to RAM on the system board. RAM on expansion cards is recognized without changing switches, and it's not necessary to bring the system board up to 640K before adding plug-ins. A fifth switch selects one or two diskette drives and generally won't have to be changed.

Two switches, which I wish were external, control the display. One selects a Compaq or non-Compaq RGB monitor. The other permits on-screen underlining, but only with a Compaq monitor. When set, underlining can be toggled with the CONTROL-ALT-UNDERLINE key combination. One unpleasant surprise was finding that Compaq and non-Compaq monitors are

mutually exclusive. The switch must be reset whenever the monitor is changed, so it's inconvenient to exchange dual-mode and RGB monitors frequently.

A final switch is designated "compatibility" and has "normal" (standard) and "enhanced functions" settings. The manual says nothing more. I don't see any effect with any software, so I don't know what, if anything, this switch is supposed to do.

Using the Deskpro with non-Compaq monitors really isn't promoted but can be done. Compaq's dual-mode monochrome monitors work at two resolutions selected by CONTROL-ALT-< and CONTROL-ALT-> and do an admirable job of converting color-oriented programs to gray scales.

At first, using an RGB monitor gave me trouble. After setting the internal switches, only about 15 percent of all software using color or graphics would display. The rest gave screens of snow. Of those that loaded and ran, almost all trashed the display on exiting, requiring a complete system restart to clear the screen. It took some time to isolate the cause. I had been using PC Accelerator software with an STB Systems' RIO Plus II multifunction card. That software interfered with the horizontal synchronization signal required by the RGB monitor. It did not show up with the Compaq monitor, which does not use the signal.

The PC Accelerator problem, which has been solved, and the BASIC programs from an IBM PC-DOS diskette are the only incompatibilities I've found. Since I like to run PC-DOS, I get around the BASIC problem by copying disk-based interpreters from a Compaq MS-DOS diskette onto my working PC-DOS disk, replacing ROM-based BASIC.

The keyboard uses the IBM PC layout, but adds illuminating indicators to the CapsLock and NumLock keys. It does not feel as flimsy as the portable keyboard, nor as solid as a PC. Unlike the portable, this keyboard plugs into the system unit at the front and can be replaced with third-party PC keyboards of the user's preference. I found the keyboard highly susceptible to contamination. After two weeks, I thought the control key was malfunctioning. On prying off the keytop, I found a single cat hair binding the mechanism; so frequent cleaning obviously is required.


EasyNet

is so easy to use it's seductive...

- 800# access to over 600 databases
- Works on *all* terminals and PC's
- SOS 24 hour *online* customer service
- Credit card or account billing
- Pay *only* for results

No software to purchase
No startup costs or connect charges
No training or documentation required
No search languages to learn or remember

EasyNet

... your practical information connection

For access dial

1-800-EasyNet

(800-327-9638) on your terminal or PC

Customer Service:
215-664-6972

134 North Narberth Avenue Narberth PA 19072

Circle 7 on the Reader Service card or GO EBB.


DOS is an extra-cost option. The one diskette provided is nothing more than a system diagnostic without a usable DOS. While some computers bundle extensive software, it does seem somewhat arrogant to package a machine without an operating system — like selling a car without a transmission.

Despite the few problems, I've been pleased with the Deskpro. I don't regret buying it, and I consider it the best and most usable of the PC compatibles I've tried and definitely superior to the IBM PC or PC-XT.

*Ernest E. Mau, a full-time free-lance writer and* Online Today *reviews editor is based in Aurora, Colo. He is the author of several books and nearly 200 articles on microcomputer products and applications.*

Circle 8 on the Reader Service card or GO EBB.

**Want to Read More Hardware Reviews?**

Then GO OLT from any prompt in the CompuServe Information Service and choose "Product Reviews" from the main menu.

Online TODAY ELECTRONIC EDITION

# Open Access Ambitiously Integrates Six Business Functions

Software Products International Inc.
10240 Sorrento Valley Rd., #100
P.O. Box 261459
San Diego, CA 92126-0994
619/450-1526 or 800/821-7209

**Computers:** IBM PC, PC-XT and slot-compatible microcomputers.
**Operating Systems:** PC-DOS or MS-DOS version 2.0 or higher.
**Media:** Requires two double-sided, double-density diskette drives or one diskette drive and a hard disk.
**Required Peripherals:** Graphics card and color monitor required for graphics only; auto-dial modem (Hayes Smartmodem or compatible recommended) for communication feature.
**Other Requirements:** Minimum 192K RAM.
**Optional Items:** Additional diskette drives, hard disk or electronic disk; additional memory; printer.
**System used for test:** 640K Compaq Deskpro (Model 2) with two 360K diskette drives, 20MB IOMEGA Alpha-10 Cartridge Drive Subsystem (Bernoulli Box), STB Systems' RIO Plus II multifunction card, Compaq dual-mode amber and Amdek Color 700 monitors, Epson MX-80 printer, Bizcomp IntelliModem-XL (Hayes compatible) and Universal Data Systems' 212A/D modems; running IBM PC-DOS 2.10 and Compaq MS-DOS 2.02.
**List Price:** $595

*Reviewed by Ernest E. Mau*

The point of integrated software is to perform as many tasks as may be needed within one coordinated, coherent system — that is, to undertake multiple operations using the same basic command structure and without exiting the program.

Data usually can be transported easily from one function to another. A user might start the system in the morning, being reminded by it that a report is due that afternoon. Pertinent data then might be drawn from a database, manipulated on a spreadsheet, graphed and analyzed, merged into a written report and transmitted via modem to the recipient.

Open Access is capable of just those kinds of things. It contains an information manager, spreadsheet, word processor, graphics generator, time management system, telecommunications system and utilities. Each function can draw on any one or any combination of the other functions.

Atypically, Open Access is built around its information manager instead of its spreadsheet, giving it a different feel than some other integrated packages. This is basically a filing system in which forms are defined and data are entered within the fields. It can handle anything from simple name and address files to employee records, inventories, order tracking and so on. Each file can contain up to 32,000 records with 55 fields per record. The information manager is relational. That is, it can link files (up to five at a time) to retrieve information.

The information manager uses a subset of IBM's database query language known as SQL and communicates with English-like statements. It has extensive user prompting without a complex command language.

The spreadsheet can be used manually from the keyboard, can draw data from the information manager or can use combined inputs. What the spreadsheet lacks in simplicity it makes up for in capabilities. For example, it can manipulate multiple "models" or spreadsheets simultaneously, up to four at a time. It can put different things into different windows, such as equations in one and computed results in another. It can link or consolidate models and worksheets as needed. Its most attractive function is "goal seeking," wherein fixed values are entered, a final goal such as desired profit is established and variables necessary to meet the goal are calculated by the spreadsheet. Of course, it also has the typical "what if" approach where variables can be changed to see what happens to the results.

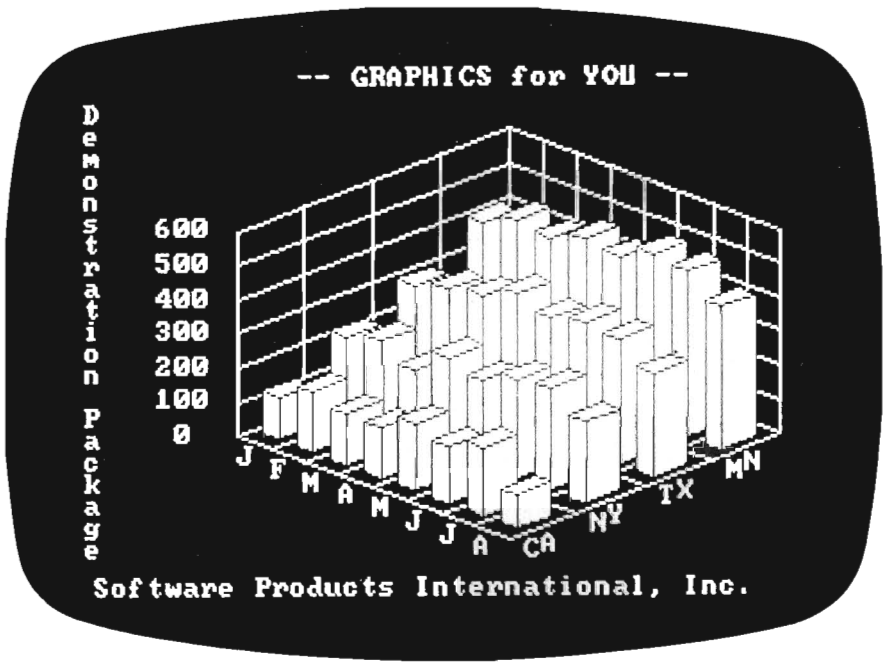
The word processor isn't the most capable I've seen and certainly doesn't compete with the dominant freestanding word processors. Yet it has an adequate complement of functions for entering and editing text. It includes find and replace, move or copy, justification, margin control, print control, mass mailing and the ability to import text from other sources. While I find it cumbersome and slow for long documents and wouldn't want to tackle instruction manuals or book manuscripts with it, the Open Access word processor seems entirely suitable for letters, reports, memos and other items that constitute the typical flurry of paperwork in an office.

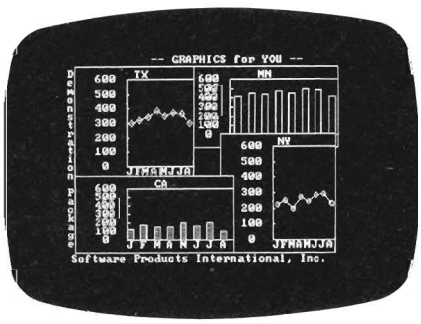
Time management functions are versatile. Separate systems may be set up and maintained for several individuals. On entering, files for one person may be recalled, a calendar for the month is displayed, and access is provided to a moderately complex system of reminder pages, note cards and the like. Appointments can be scheduled at 10-minute intervals throughout a 24-hour day. Notes can be kept for appointments, address cards can be created and filed, and so on. There are automatic search capabilities, manual and automatic appointment scheduling and the ability to simply browse through scheduled events. However, Open Access does not have an alarm system to remind a user working elsewhere in the system that it's time for an appointment or function.

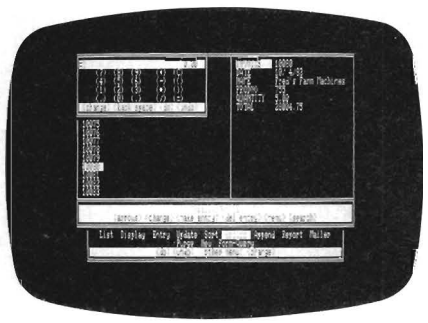
The graphics section is clever and capable of generating effective business charts and graphs of data such as that drawn from a spreadsheet model. It handles simple bar, line and pie charts, overlays or side-by-side windows of multiple charts and three-dimensional displays. It can handle up to 30 levels of graphing, several combinations of color palettes and backgrounds, scaling, axis titling and other things affecting the visual appearance. Most intriguing of all is the ability to change the view, perhaps to rotate a three-dimensional graph, look at another side, squash it, stretch it, remix colors or whatever.

The communications module was unimpressive. The delivered version had a configuration only for a Hayes Smartmodem and took considerable work to set up for my UDS 212A/D. While it can communicate with almost any other system, it seems best suited to a master/slave relationship with another computer running Open Access. There's no evidence of error-checking protocols for uploading or downloading to mailing or information services, making it less reliable than freestanding communications software.

Ranking Open Access functions from strongest to weakest, the order would be graphics, information management, spreadsheet, time management, word



processing and communications. I'd discount the communications function for most of my applications and would use other software instead.

Installing the five copyable diskettes that make up Open Access was easy enough, both to diskette and hard-disk systems. However, using Open Access was anything but easy, owing to a lack of on-screen help, sometimes cryptic menus and prompts and a disjointed and almost unintelligible approach to documentation.

The package had 923 pages of documentation (I counted), with most in reduced type spread across more than a dozen manuals and documents. Each section apparently was written by different people with different ideas. It's often hard to tell whether material being read is an instruction, an explanation or an example, and much backtracking and rereading is needed. Frequently, working through an example shows that something can be done, but gives little insight into why it works or how to do it outside the example.

Given thorough familiarity with Open Access, it might be a powerful and effective system. But gaining familiarity isn't easy. I can't imagine busy executives, assistants or secretaries having enough time to fight through the documentation, and I believe most will be discouraged long before learning the system. Since understanding the documentation is crucial, that severely hampers the system.

With plenty of time to study and experiment — weeks, not hours or days — Open Access could be worthwhile.

Circle 9 on the Reader Service card or GO EBB.

# WordVision Writing Tool:

## A Useful but Limited Word Processor

Bruce & James Program Publishers Inc.
2355 Leavenworth St., Suite 103
San Francisco, CA 94133
415/775-8400

**Computers:** IBM PC and compatibles.
**Operating Systems:** PC-DOS and MS-DOS (1.0, 1.1, 2.0 and higher).
**Media:** At least one disk drive, single- or double-sided.
**Required Peripherals:** Dot-matrix or letter-quality printer; 80-column monochrome or color monitor with adapter.
**Other Requirements:** Minimum 96K RAM.
**System Used for Test:** 320K Heath 150-PC running MS-DOS 2.11; two double-sided drives; Zenith monochrome monitor; Epson MX-80 and Radio Shack DMP-2100P printers; 128K Microfazer printer buffer.
**List Price:** $79.95. Various "Power Packs" for spelling checking, form letters, communications, desk tools and additional printer drivers are available, but were not provided for review.

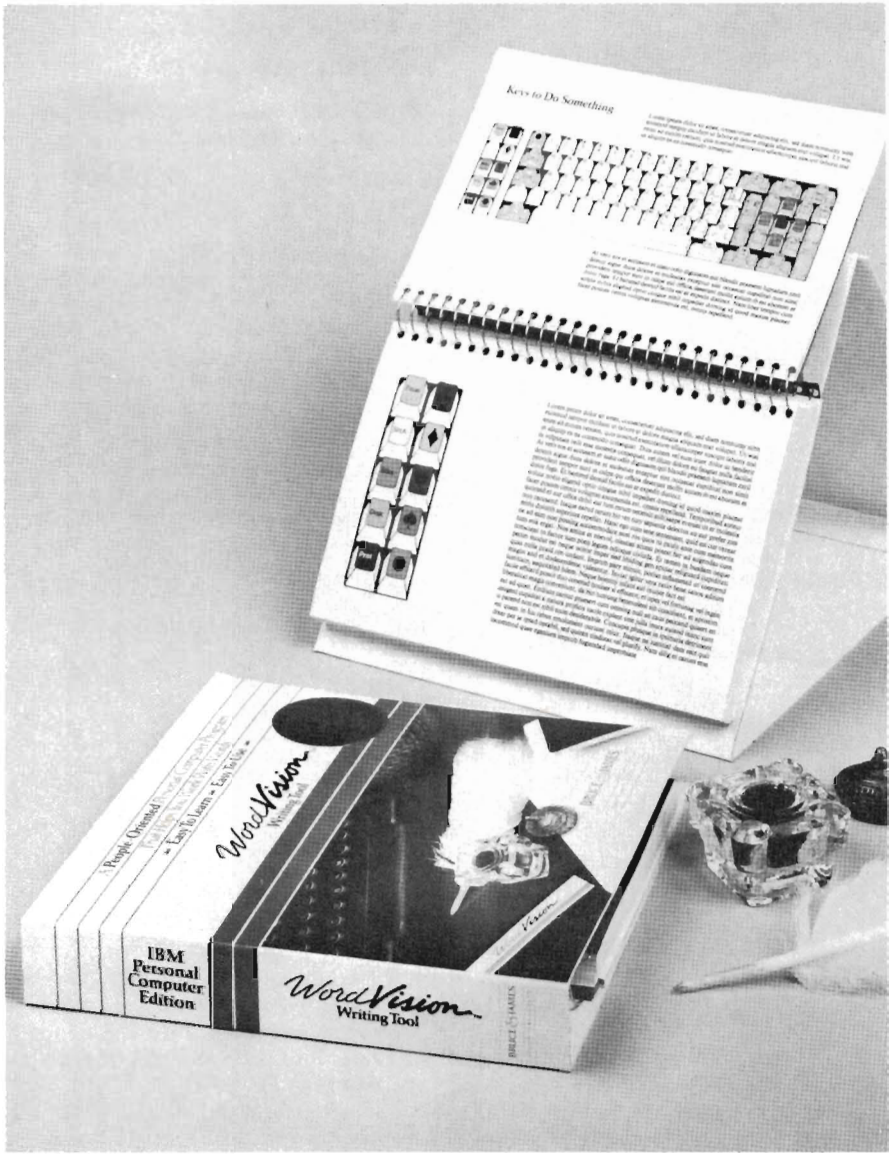
*Reviewed by Hardin Brothers*

If I were a computer novice, I'm sure I'd think that the WordVision Writing Tool does everything a word processor possibly could. However, I'm not and it doesn't.

I don't mean that WordVision isn't useful or powerful; it is both. It is easy to use and to learn, and it is an excellent value at $80. However, it has just enough quirks and limitations to make me feel hemmed in and dissatisfied.

If you are willing to stick 31 paper labels on your computer keys, there probably is no word processor that is easier to learn than WordVision. The manual is clear and takes you through all the many options and functions step by step. However, if you don't want to use labels (the manual states that you don't have to if you memorize special functions of a few keys), WordVision is much more difficult to learn because instructions all are in terms of the special labels' symbols.

You set various parameters not with the mysterious-looking formatting




codes that many word processors require but through easy-to-use menus and options pages. You may change parameters at any time, and your text is reformatted automatically. This system of setting parameters is ideal for beginners, but has a serious drawback. Many parameter settings affect the entire document. For example, once you set a type size — from five to 17 characters per inch — you must use the same setting throughout your document.

The screen display always shows the appearance of your final document except for headers, footings and page breaks. If you want single-spaced text, that is what you see on the screen. If you choose double-spaced text, the screen is double-spaced. Since line spacing is among parameters that affect the entire document, you can't place a single-spaced paragraph inside double-spaced text.

It is particularly easy to use emphasized type, underlining, superscripts and subscripts with WordVision. You merely mark the beginning and end of a text section with the cursor and press a function key. The marked section is shown in a different color or gray tone on your screen.

WordVision allows each document to have a filename up to 40 characters long. It maintains its own directory of WordVision files on each disk and keeps track of the time and date of each file, length in pages, and 40-character (or less) name for each. Files are physically stored on disk with the names GENERAL.00, GENERAL.01, etc. Because of this scheme, you cannot store more than 50 files on any one disk. However, WordVision can also store standard ASCII files with normal DOS filenames, limited only by the size of your disks.

WordVision allows you to save the working environment with your text if you wish. You can save the text, up to six single-key phrases, tab and indent settings, page appearance and WordVision parameter settings with each file. You may select any combination of those options you wish to make reworking the file later as easy as possible.

WordVision also can be set to save text on disk regularly while you write, but you must turn this feature off before printing a document. Otherwise, if WordVision jumps into an automatic save, it stops printing, saves text and returns to edit mode instead of finishing printing. You will have to start printing again from the beginning.

WordVision supports a limited number of printers: Epson and IBM dot-matrix printers with and without graphics, the NEC 3550 SpinWriter, Diablo printers, electronic typewriters, and what WordVision calls "dumb printers" and "very dumb printers." There are no options for supporting special features of other printers, except for embedding special characters in text, which will throw off right justification and word-wraparound. However, extra-cost optional drivers for other printers are available, as is a special programming package for developing custom printer drivers.

In general, I found WordVision easy to use within its self-imposed limitations. If you own a supported printer, don't need to know how many words or characters you've typed or how much memory you have left, and don't need forced page breaks or fancy formatting, then WordVision with its simplicity and ease of use deserves careful consideration. But if you have complex writing tasks, you'll need more power than WordVision can provide.

Hardin Brothers is an associate editor of *80 Micro* and a frequent contributor to several other magazines. He is also an assistant sysop of CompuServe's Writers' and Editors' Special Interest Group (GO WESIG).

Circle 10 on the Reader Service card or GO EBB.

# Research Economic Database Manager

Economic Software Inc.
P.O. Box 10925
Eugene, OR 97440
503/485-6599 or 800/228-2496

**Computers:** IBM PC, PC-XT and compatibles.
**Operating Systems:** PC-DOS 2.x, MS-DOS 2.x.
**Media:** Two double-sided disk drives.
**Required Peripherals:** None.
**Other Requirements:** Minimum 196K RAM.
**Optional Items:** Graphics board required for graphics portion; printer recommended.
**System used for test:** 320K IBM PC, two double-sided double-density disk drives, Okidata 84 printer, running PC-DOS 2.0.
**List Price:** $695

*Reviewed by William J. Lynott*

Research is an unusually versatile program for managing any sort of data occurring around a time base. It will store, analyze or graph daily, weekly, monthly or yearly statistical information with surprising ease. Although Research is intended for the management of recurring financial data, its thoughtful design permits a wide variety of database management functions.

Despite its power, Research users do not have to be mathematical wizards. The thin user's manual is both primer and reference, written in straightforward English. The manual led me comfortably through what might otherwise have been a confusing maze of mathematical functions. Research is completely menu-driven, and help screens can be called up at any point.

In what must have been a gargantuan task, the authors built in 325 weeks (up to late 1984) of statistical data on 40 major economic measures in two separate databases. In addition to such familiar terms as gross national product (GNP), consumer price index (CPI) and the Dow-Jones industrial average, you will find six years worth of such statistics as precious metals prices, money supply figures and new housing starts. In all, an astonishing amount of financial data.

The Research program is copy-protected; however, a backup copy is provided. The financial database is stored on a separate disk that can be copied. Since the statistics in the database are available through normal research channels, you can update them yourself. If you prefer, periodic updates can be ordered through the publisher.

Using two sample databases, the Research user's manual leads the reader through the simple steps required to create an original database. Because it is designed to manage data around a time function, Research fills in daily, weekly and monthly dates automatically. You can specify a beginning date anywhere from January 1701 and an ending date to 2100 A.D. Research will fill in the intermediate dates. If your data entries are less frequent than daily, Research will fill in the daily entries through a built-in interpolation function.

When you are designing the matrix for your database, you will be asked to supply such parameters as minimum and maximum values and decimal formats. These provide benchmarks for the program that help trap data-entry errors. For example, if you are tracking the annual inflation rate and establish 1 percent as the minimum and 15 percent as the maximum, the program will not permit an entry that falls outside those figures.

Research calls individual records in a database "series." If your database is being used to track the price of a portfolio of stocks, for example, each stock entry would be a series. The term series comes from economics and indicates a series or sequence of numbers rather than a single number. In a process called transform series, Research allows you to combine one or more series from one database into another. Transformation also can be used to invoke such functions as annual rate of change, moving average and percent of change. The program quickly computes such descriptive statistics as mean, variance and standard deviation.

The graphics function can plot any series from your database. By choosing Trend Analysis on the graphics menu, you can forecast probable future results. Using past history, the program establishes a trend line, which you can project as far ahead as you choose. You then can print the graph for later study. The Multiple Regression choice allows you to select one series from a group and designate it as a dependent series. You then can analyze how results in the remaining series affect the dependent series. For example, you could study the effects of money supply on the inflation rate.

Another valuable Research feature is an ability to write and read files in Data Interchange Files (DIF) format. This permits you to import data from programs such as Lotus 1-2-3 into Research databases. Thus, extensive data already recorded in programs compatible with DIF can be used without duplicating the original input work.

Despite its obvious sophistication, I found Research easy to use. While much of the program's mathematical capability is found in the latest versions of integrated spreadsheet programs on the market, duplicating a database created easily by Research would be an enormous, error-prone project on a spreadsheet.

The price of Research puts it out of range for casual users, but economic and financial researchers should find it to be the answer to their dreams.

*William J. Lynott is president of W.J. Lynott Associates, a management consulting firm in suburban Philadelphia, Pa. His CompuServe User ID number is 70007,420.*

Circle 12 on the Reader Service card or GO EBB.

COMPUTERIZED DISCOUNT BROKERAGE

**Buy and Sell Stocks with your Personal Computer!**

Tickerscreen® offers closing NYSE prices, market indexes, and direct entry of orders for execution the following business day on CompuServe's Executive Information Service; **GO TKR** Order entry and additional information available on the Electronic Mall; **GO MU**

MaxUle& Company Inc.

202 East 39th Street, N.Y., 10016
(212)687-0705

FREE BROCHURE (800) 223-6642

NAME _____

ADDRESS _____

CITY _____

STATE _____ ZIP _____

Circle 11 on the Reader Service card or GO EBB.

# 84¢ Diskettes
# Name Brand Quality
# Toll-Free Ordering
# Fast Delivery

## *Call Communications Electronics*

Diskette order desk

**800-USA-DISK**

In Canada 800-CA1-DISK

**Choose your brand**

**Choose your price**

**Super Disk diskettes** for as low as **$0.84 each**

**Wabash diskettes** for as low as **$0.89 each**

**BASF diskettes** for as low as **$1.34 each**

**3M diskettes** for as low as **$1.49 each**

| Product Description | Super Disk Part # | CE quant. 100 price per disk ($) | Wabash Part # | CE quant. 100 price per disk ($) | BASF Part # | CE quant. 100 price per disk ($) | 3M Part # | CE quant. 100 price per disk ($) |
|---|---|---|---|---|---|---|---|---|
| 8" SSSD IBM Compatible 128B/S, 26 Sector | ——— | ——— | F111-Y | 1.59 | ——— | ——— | 8SSSD-Y | 1.94 |
| 8" SSSD Shugart Compatible, 32 Hard Sector | ——— | ——— | F31A-Y | 1.79 | ——— | ——— | ——— | ——— |
| 8" SSDD IBM Compatible (128 B/S, 26 Sectors) | ——— | ——— | F131-Y | 1.89 | ——— | ——— | 8SSDD-Y | 2.39 |
| 8" DSDD Soft Sector (Unformated) | ——— | ——— | F14A-Y | 2.09 | ——— | ——— | 8DSDD-Y | 2.89 |
| 8" DSDD Soft Sector (256 B/S, 26 Sectors) | ——— | ——— | F144-Y | 2.09 | ——— | ——— | ——— | ——— |
| 8" DSDD Soft Sector (512 B/S, 15 Sectors) | ——— | ——— | F145-Y | 2.09 | ——— | ——— | ——— | ——— |
| 8" DSDD Soft Sector (1024 B/S, 8 Sectors) | ——— | ——— | F147-Y | 2.09 | ——— | ——— | 8DSDD-1024-Y | 2.89 |
| 5¼" SSSD Soft Sector w/Hub Ring | 6431-Y | 1.04 | M11A-Y | 1.09 | ——— | ——— | ——— | ——— |
| 5¼" SSSD Same as above but bulk product | 6437-Y | 0.84 | M11A8-Y | 0.89 | ——— | ——— | ——— | ——— |
| 5¼" SSSD 10 Hard Sector w/Hub Ring | ——— | ——— | M41A-Y | 1.09 | ——— | ——— | ——— | ——— |
| 5¼" SSDD Soft Sector w/Hub Ring | 6481-Y | 1.19 | M13A-Y | 1.24 | 54974-Y | 1.34 | 5SSDD-RH-Y | 1.49 |
| 5¼" SSDD Same as above, but bulk product | 6487-Y | 0.99 | M13A8-Y | 1.04 | ——— | ——— | ——— | ——— |
| 5¼" SSDD 10 Hard Sector w/Hub Ring | ——— | ——— | M43A-Y | 1.24 | ——— | ——— | ——— | ——— |
| 5¼" DSDD Soft Sector w/Hub Ring | 6491-Y | 1.34 | M14A-Y | 1.49 | 54980-Y | 1.54 | 5DSDD-RH-Y | 1.99 |
| 5¼" DSDD Same as above, but bulk product | 6497-Y | 1.14 | M14A8-Y | 1.29 | ——— | ——— | ——— | ——— |
| 5¼" DSDD 10 Hard Sector w/Hub Ring | ——— | ——— | M44A-Y | 1.49 | ——— | ——— | ——— | ——— |
| 5¼" DSDD 16 Hard Sector w/Hub Ring | ——— | ——— | M54A-Y | 1.49 | ——— | ——— | ——— | ——— |
| 5¼" DSDD Soft Sector 96 Tracks per inch | 6501-Y | 2.14 | M16A-Y | 2.49 | ——— | ——— | 5DSDD-96RH-Y | 2.79 |
| 5¼" DS High Density Soft Sector for IBM PC AT | ——— | ——— | M18A-Y | 3.99 | ——— | ——— | 5DSHD-96-Y | 4.99 |
| 3½" SSDD Soft Sector micro-floppy | ——— | ——— | C13A-Y | 2.99 | 54112-Y | 2.99 | 3SSMD-Y | 2.99 |

**For more information about this brand call:**

***Lifetime warranty***
For more info on Super Disk call
**800-USA-DISK**
In Michigan 313-973-1111

***Lifetime warranty***
For more info on Wabash call
**800-323-9868**
In Illinois 312-593-6363

***Lifetime warranty***
For more info on BASF call
**800-343-4600**
In Massachusetts 617-271-4000

***Lifetime warranty***
For more info on 3M call
**800-328-9438**
In Minnesota 612-736-9524

Circle 38 on the Reader Service card or GO EBB.

## Now...name brand quality at CE prices

Now, you can buy all of your diskettes from CE at prices less than "unbranded" generic diskettes. Your data is valuable, so why take chances using a diskette that could be so unreliable that the manufacturer refuses to put their name on it. Compare our prices on our world famous name brand diskettes to what you are currently buying. To save you even more, CE also offers bulk product where 100 diskettes are packed in the same box without envelopes or labels. Since we save packaging costs, these savings are passed on to you. Diskette envelopes are also available from CE. These super strong and tear resistant Tyvek® envelopes are only $15.00 per 100 pack. Use order # TE-5 for a 100 pack of 5¼" diskette envelopes.

## Quantity Discounts Available

Our diskettes are packed 10 disks to a carton and 5 or 10 cartons to a case. The economy bulk pack is packaged 100 disks to a case without envelopes or labels. Please order only in increments of 100 units for quantity 100 pricing. With the exception of bulk pack, we are also willing to accommodate your smaller orders. Quantities less than 100 units are available in increments of 10 units at a 20% surcharge above our 100 unit price. **Quantity discounts** are also available. Order 300 or more disks at the same time and deduct 1%; 500 or more saves you 2%; 1,000 or more saves 3%; 2,000 or more saves 4%; 5,000 or more saves 5%; 10,000 or more saves 6%; 50,000 or more saves 7%, 100,000 or more saves 8%, 500,000 or more saves 9% and 1,000,000 or more disks earns you a 10% discount off our super low quantity 100 price. Almost all our diskettes are immediately available from CE. Our efficient warehouse facilities are equipped to help us get you the quality product you need, when you need it. If you need further assistance to find the flexible diskette that's right for you, call the appropriate manufacturers compatibility hotline telephone number listed at the bottom of this ad.

## Buy your diskettes from CE with confidence

To get the fastest delivery of your diskettes, phone your order directly to our order desk and charge it to your credit card. Written purchase orders are accepted from approved government agencies and most well rated firms at a 10% surcharge for net 10 billing. For maximum savings, your order should be prepaid. All sales are subject to availability, acceptance and verification. All sales are final. All prices are in U.S. dollars. Prices, terms and specifications are subject to change without notice. Out of stock items will be be placed on backorder or substituted for equivalent product at no extra cost to you unless CE is instructed differently. A $5.00 additional handling fee will be charged for all orders with a merchandise total under $50.00. All shipments are F.O.B. CE warehouse in Ann Arbor, Michigan. COD terms are available, in U.S. UPS areas for $5.00 extra, and are payable with cash or certified check.

For **shipping charges** add $8.00 per 100 diskettes and/or any fraction of 100 8-inch diskettes, or $6.00 per 100 diskettes and/or any fraction of 100 5¼-inch or 3½-inch diskettes for U.P.S. ground shipping and handling in the continental U.S. UPS 2nd day air rates are *three* times continental U.S. rates. For Canada, Puerto Rico, Hawaii, Alaska, or APO/FPO delivery, shipping is *three* times the continental U.S. rate.

**Mail orders to:** Communications Electronics, Box 1045, Ann Arbor, Michigan 48106 U.S.A. If you have a Visa or Master Card, you may call and place a credit card order. Order toll-free in the U.S. Dial 800-USA-DISK. In Canada, order toll-free by calling 800-CA1-DISK. If you are outside the U.S. or in Michigan dial 313-973-8888. WUI telex anytime 671-0155. Order today.

Copyright © 1985 Communications Electronics Inc. Ad #010185-Y

COMMUNICATIONS ELECTRONICS INC.™

***Computer Products Division***

Box 1045 □ Ann Arbor, Michigan 48106-1045 U.S.A.
Call toll-free 800-USA-DISK or outside U.S.A. 313-973-8888

MasterCard VISA

### Fuji diskettes for as low as $1.49 each

| Fuji Part # | CE quant. 100 price per disk ($) |
|---|---|
| FD1S-128N-Y | 1.94 |
| FD2D-Y | 2.89 |
| FD2D-1024-Y | 2.89 |
| MD1D-Y | 1.49 |
| MD2D-Y | 1.99 |
| MD2D-96TPI-Y | 2.99 |
| MD2-HD-Y | 5.29 |
| MF1DD-Y | 3.99 |

**Lifetime warranty**
For more info on Fuji call
**800-223-6535**
In New York 212-736-3335

### TDK diskettes for as low as $1.49 each

| TDK Part # | CE quant. 100 price per disk ($) |
|---|---|
| F1-S-Y | 2.34 |
| F2D-S-Y | 2.89 |
| F2D-S1024-Y | 2.89 |
| M1D-S-Y | 1.49 |
| M2D-S-Y | 1.99 |
| M2DX-S-Y | 2.99 |
| M2HD-S-Y | 4.99 |
| MF1DD-Y | 2.99 |

**Lifetime warranty**
For more info on TDK call
**800-645-6571**
In New York 516-625-0100

### Memorex diskettes for as low as $1.59 each

| Memorex Part # | CE quant. 100 price per disk ($) |
|---|---|
| 3062-Y | 1.94 |
| 3015-Y | 1.94 |
| 3090-Y | 2.39 |
| 3102-Y | 2.89 |
| 3104-Y | 2.89 |
| 3481-Y | 1.59 |
| 3491-Y | 2.19 |
| 3501-Y | 2.99 |
| 5500-Y | 4.49 |
| 6100-Y | 2.74 |

**5 year warranty**
For more info on Memorex call
**800-448-1422**
Monday-Friday 9am-4pm ET

### Verbatim diskettes for as low as $1.59 each

| Verbatim Part # | CE quant. 100 price per disk ($) |
|---|---|
| 28820-Y | 1.59 |
| 28821-Y | 2.19 |

**1 year warranty**
For more info on Verbatim call
**800-538-8589**
In California 408-245-4400

### Dysan diskettes for as low as $1.84 each

| Dysan Part # | CE quant. 100 price per disk ($) |
|---|---|
| 800501-Y | 2.39 |
| 800605-Y | 2.69 |
| 800803-Y | 3.14 |
| 800839-Y | 3.14 |
| 801187-Y | 1.84 |
| 802060-Y | 2.59 |
| 802067-Y | 3.89 |
| 802914-Y | 4.99 |

**Lifetime warranty**
For more info on Dysan call
**800-552-2211**
In California 408-970-6096

### Kodak diskettes for as low as $1.84 each

| Kodak Part # | CE quant. 100 price per disk ($) |
|---|---|
| 108-4284-Y | 2.39 |
| 134-7376-Y | 2.69 |
| 125-3763-Y | 3.14 |
| 126-3789-Y | 3.14 |
| 111-1806-Y | 1.84 |
| 177-3688-Y | 2.59 |
| 130-4344-Y | 3.89 |
| 198-4806-Y | 5.89 |
| 127-3382-Y | 3.99 |

**Lifetime warranty**
For more info on Kodak call
**313-967-1600**
Monday-Friday 10am-4pm ET

# Get Connected:

## A Guide to Telecommunications

By Tom Kieffer and Terry Hansen
Ashton Tate, 1984
423 pages, $24.95 (softcover)
*Reviewed by James Moran*

Only a few years ago personal computers were the domain of rabid electronic hobbyists, and telecommunicating was something that only a commercial enterprise with a large mainframe — and a correspondingly larger budget — could accomplish. Today, of course, personal computers and telecommunications often seem like natural extensions of one another. They seem natural because we are familiar with them. But there was a time when even the most knowledgeable among us were confused about how these two technologies could be melded. And some of us are still at least a little confused.

*Get Connected* is a book about personal computers and telecommunications. Most of the information in this book is not new nor is there any great amount of information that could not be found elsewhere. What is unique about this book, however, is the variety of information it contains and the depth of coverage it strives for.

The book begins by examining why a personal computer user might want to "get connected." The authors are quick to point out that an interconnecting data communications system is evolving so quickly and on a scale so large that most of our society is just beginning to realize its scope, even though more than 60 percent of the American workforce already concerns itself primarily with the processing of information. It does not take the discerning reader long to figure out that the personal computer sitting down in the den can tap into that vast information network quickly and efficiently.

Most of *Get Connected* contains information and instructions on utilizing a computer teleconnection. The major information utilities, such as CompuServe, are fully explained, and hundreds of lesser-known networks and bulletin boards are neatly capsulized. Of course, a book like this would not be complete without a section that discusses telecommunications orientated software and hardware. Both subject areas are adequately covered, and the information that is supplied is refreshingly current.

The only unfortunate thing about this book is its somewhat plebian cover. Since it looks so much like a phone book, a casual browser might easily pass it by — a fate that this book definitely does not deserve.

*James Moran is the editor of* Compu-Syn, *a syndicated news service that specializes in computers and robotics.*

# The Microcomputer User's Guide to Information Online

By Carol Hansen
Hayden Book Co., 1984
224 pages, $18.95 (softcover)
*Reviewed by James Moran*

To paraphrase an often made comment: Publishers must love books about online systems because they print so many of them. This must be the fiftieth book about public-access databases that has been published in the past 12 months, but if you have a need to obtain unusual or little-known information, you may find this guide to be particularly useful.

The first few chapters of *The Microcomputer User's Guide to Information Online* contain what seems to have become the standard introduction for books about online databases. The reader will not find anything of earth-shaking consequence in these sections, but the introduction to teleprocessing terminology — and the accompanying subject overview — are presented clearly and with an eye toward the novice.

A nice touch in these early chapters is a discussion about navigating through online services. Most books ignore the subject even though this is probably the one area that causes the most confusion among new users.

Information on the use of commercial databases is covered in four chapters that are organized by the type of information provided: information utilities such as CompuServe, reference vendors such as Dialog, technical databases such as Chemical Abstracts and business or economic vendors such as Dow Jones. Each vendor's service is thoroughly described with entries that include hours of operation, connect charges, system protocols and a synopsis of the services offered. Those vendors that the author considered the most accessed have expanded sections that include specific information about special services such as CompuServe's Email (now EasyPlex).

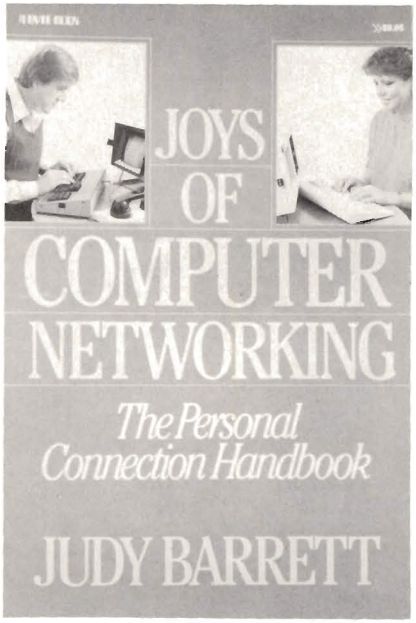
The final chapters of the book contain overviews on selecting communications equipment, suggestions on obtaining appropriate software and a limited discussion on community bulletin boards. Although none of these subjects is covered in depth, enough information is presented to at least make new users aware of available options and services. For those who need more information, the author has included a helpful bibliography.

Carol Hansen has done an admirable job in introducing readers to online information. Although not a technical manual, the book is a helpful and practical guide that will answer the questions of most new online users: What information is out there? How do I get at it? How much will it cost?

# Joys of Computer Networking:

## The Personal Connection Handbook

By Judy Barrett
McGraw-Hill, 1984
219 pages, $9.95 (softcover)
*Reviewed by William J. Lynott*




If you saw the movie *2001*, I'll wager that you still remember Hal the talking computer. In one of the most chilling movie scenes ever filmed, Hal announces to the ill-fated crew members that he is taking over the spaceship.

*Joys of Computer Networking* talks of computers used to communicate with human beings but in a far more pleasant context. Networking is the current buzzword for hooking up two or more computers to telephone lines so that the computer operators can talk to each other or transfer information from one computer to another. Not too exciting, you say? Well, that simple description hardly scratches the surface.

In *Joys of Computer Networking*, author Judy Barrett provides a wide-ranging view of how a person with no technical knowledge or experience with computers can get in on the fun.

In the opening chapter, Ms. Barrett describes networking in a way that will have you anxious to fire up. Emphasis throughout is on the personal aspects of networking: why people do it and what they get out of it (would you believe romance?) — all with lots of assurance that you needn't be a computer freak to participate.

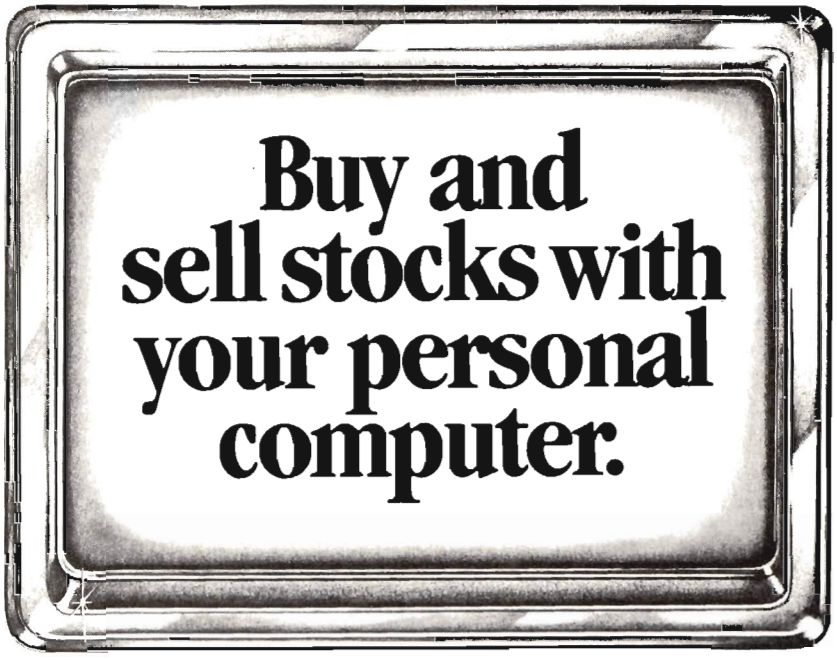
In Chapter 2 you will learn about the hardware and software needed to begin networking. If you're a complete beginner in the world of personal computers, you'll like the information on how to shop for your equipment. In this chapter, as in all the others, simple explanations of what might otherwise be complex subjects are subtly woven into the text. You're getting educated without realizing it.

Separate chapters are devoted to explanations of local bulletin boards, electronic mail and just plain fun and games. The huge information utilities, such as CompuServe, are an important part of networking. A chapter of their own explains how you can use them for virtually every type of networking. In Chapter 9 you'll get an inside peek at how networking has fostered new romances.

Of course, networking needn't be all fun and games. Such serious pursuits as education and heavy research are naturals for the computer/modem combination. *Joys of Computer Networking* includes information on using your computer as a teaching instrument. You'll also learn how you can use it to access the mind boggling stores of information contained in commercial databases, such as BRS and Dialog. The final chapter contains a reference listing and telephone numbers of computer databases, electronic bulletin boards and public information utilities.

*Joys of Computer Networking* is light and informative reading on a topic that might otherwise be intimidating. If you're just thinking of getting started with your first computer, you'll find it a good investment at under 10 bucks.

*William J. Lynott is president of W.J. Lynott Associates, a management consulting firm in suburban Philadelphia, Pa. His CompuServe User ID number is 70007,420.*


Now use your own personal computer to place stock and option orders 24 hours a day, seven days a week. Get quotes, review your portfolios and more. And save up to 75% on brokerage commissions.* For more information, call toll free today:
**1-800-544-6666.**
In Mass., call collect (617) 523-1919
*As compared with full-cost brokerage firms. Minimum commission is $30.00.

FIDELITY
INVESTORS XPRESS
FIDELITY BROKERAGE SERVICES, INC.
Member NYSE. SIPC.

NO060185
Circle 15 on the Reader Service card or GO EBB.

# SHOPPER'S GUIDE

## RATES & INFORMATION

If you have hardware, software or services to offer *Online Today*'s readers, let them know with a low cost Shopper's Guide listing.

For only $85, a listing will tell *Online Today*'s growing readership what is available to improve efficiency, lower costs and increase the enjoyment of personal computing.

Listings are classified in four categories: Software, Services, Consultants and Retailers. As each listing is received, it will be published in the next available issue of *Online Today*.

Each listing costs $85 and covers the general listing information as well as a 40-word description of the product or service. Additional words are $15 for up to 15 words. Listings that run for three or more consecutive issues earn a 10 percent discount. Payment MUST be received with listing information.

The following is a guide to the type of information to include in a listing:

**Software:** Product name; author and/or company's name; mailing address; telephone number; CompuServe User ID number; up to 40 words describing your products.

**Services:** Type of service; company name; mailing address; telephone number; CompuServe User ID number; up to 40 words describing your services.

**Consultants:** Company and individual contact name; mailing address; telephone number; CompuServe User ID number; up to 40 words describing your products and services.

**Retailers:** Company name; individual contact name; mailing address; telephone number; CompuServe User ID number; up to 40 words describing your products and services.

You may use the enclosed card when ordering your ad or mail your information with payment to *Online Today* Shopper's Guide, P.O. Box 639, Columbus, Ohio 43216-0639.

## SOFTWARE

**THE PRIVATE LINE™**
**Everett Enterprises**
**P.O. Box 193**
**Bath, NC 27808**
**919/923-5621**

DATA ENCRYPTION STANDARD. CP/M software DES implementation ENCRYPTS, DECRYPTS, DISPLAYS & ERASES any CP/M file. Encrypts 20K bytes in 2 minutes @ 4 MHz. Compatible with other DES devices. Specify CPU & disk format. $29.95. N.C. residents add 4.5%. VISA, MC, M/O, CK.

**HYBRID TERMINAL**
**Thomas W. Howey**
**TwH Electronics**
**2 Stacey Rd.**
**Goffstown, NH 03045**
**603/497-3539**
**CompuServe 72636,1312**

HYBRID TERMINAL is a low cost terminal program for the Commodore 64. Features 38K of memory and fast data transfer to disk/tape/printer. Allows writing messages while offline. Disk/tape $16.95 plus $2 shipping. EasyPlex for specs.

**APPLE PUBLIC DOMAIN SEVEN DISK COLLECTION**
**Gennaro Conte**
**2522 Holland Ave.**
**Bronx, NY 10467**
**CompuServe 74005,1064**

Seven disk collection of Games, Modem, BASIC Tools, DOS Tools, Education, etc., for the Apple II Plus/IIe/IIc.

**MULTIPAK**
**Orlando Mansur**
**101 Garrison Ave.**
**Jersey City, NJ 07306**
**201/659-7031**
**CompuServe 72755,563**

FUNCTIONS: Numerical integration, differentiation. Roots. LINEAR REGRESSION: High resolution display. Dumps to printer or plotter. Custom functionals, windows. Magnified. INTEGER FACTORIZATION. SAVINGS & LOANS: Any period. Analyze by date, payment number, balance. DIRECTORY: Search by 13 fields. Commodore 64. $49.95.

**SORT/MERGE UTILITIES**
**Madd Programmer Software**
**831 32nd Ave.**
**Seattle, WA 98122**
**206/324-6980**

Runs under CP/M on Commodore 64. Accepts 14 key fields and character, packed, zoned & binary key field types. Will sort fixed or variable length records. Write for more information. A must for serious programmers. Only $29.95 + $2 P&H.

**VS64COBOL**
**Visionary Software**
**25882 Orchard Lake Rd., Ste. L9, Dept. SG**
**Farmington Hills, MI 48018**
**313/471-4306**
**CompuServe 74706,622**

Powerful software system for writing business programs or learning COBOL on the Commodore 64. Consists of an Editor, Compiler, Interpreter, Symbolic Debugger and 130 page manual. 1541 disk required. 10 day satisfaction guarantee. $49.95. C.O.D. add $5. Dealer inquiries invited.

**WORD FINDER (Synonym Finder)**
**Writing Consultants**
**11 Creek Bend Dr.**
**Fairport, NY 14450**
**800/828-6293, in New York 716/377-0130**
**CompuServe 74405,1451**

Improve your writing by quickly finding a better word. Put your cursor on a word (right in your document while using your word processor), and up pops a window with words with similar meanings. Pick one, and voila, your new word replaces your old word. Even retains the same capitalization! Installs in seconds and is EASY to use. Works with WordStar (CP/M or PC/MS-DOS), Microsoft Word, Multimate, Word Perfect, WS 2000, Pfs-Write and IBM Writing Asst. Specify word processor and computer brand. Special introductory offer: $79.95 (reg. $124.95), plus $2.50 shipping. VISA/MC, C.O.D. orders and checks accepted.

**64 SOFTWARE PROTECTION DISK**
**Systems Software**
**44 Route 25A, #209**
**Smithtown, NY 11787**

Copy and list protect your BASIC programs just like the professionals. This disk package utilizes advanced autoboot and disk error routines to protect your valuable programs from software pirates. Special offer $10. For the Commodore 64 with 1541 disk drive.

## SERVICES

**HUMAN SEXUALITY**
**Medical Advice and Information**
**Support Groups — Interactives**
**GO HSX on CompuServe**

*** New! ONLINE SELF-HELP GROUPS (Our SIG). For emotional growth through open exchanges about feelings, experiences, relationships. Wide range of sections. *** INTERACTIVES! A new dimension in programming. Fun! Challenging! Instructive! *** COUNSELING. For any sex-related concern, knowledge and guidance from foremost authorities in sexual medicine and sex therapy. Candid answers about Abortion, Adolescence, Anatomy, Children, Contraception, Dating, Deviations, Diseases, Drugs, Dysfunctions, Gynecology, Homosexuality, Marriage, Masturbation, Menstruation, Psychiatry, Urology. *** CONTINUALLY UPDATED! ***

**GENERAL TYPESETTING SERVICES**
**Quality Printing**
**243 South Lincoln**
**West Point, NE**
**402/372-5182**
**CompuServe 70206,171**

Very low prices on typesetting and/or printing. 50 styles of type available in sizes from 5.5 to 74 point. Quotations available before work started. Call collect to order free starter kit. 24-hour turn around on most jobs.

**WORDCRAFT TYPESETTING**
**Telecom/Disk Transfer Typesetting**
**1331 West Gray**
**Houston, TX 77019**
**713/522-4251**
**CompuServe 74656,1407**

Wordprocessing letterperfect copy then giving it to your typesetter to rekeyboard is redundant! Wordcraft saves you money by capturing your keystrokes from wordprocessor disk or via telecommunications. The less time we spend on a job the less it costs you. Offering quality typography — over 100 faces — fast turnaround — drop us a line or call today!

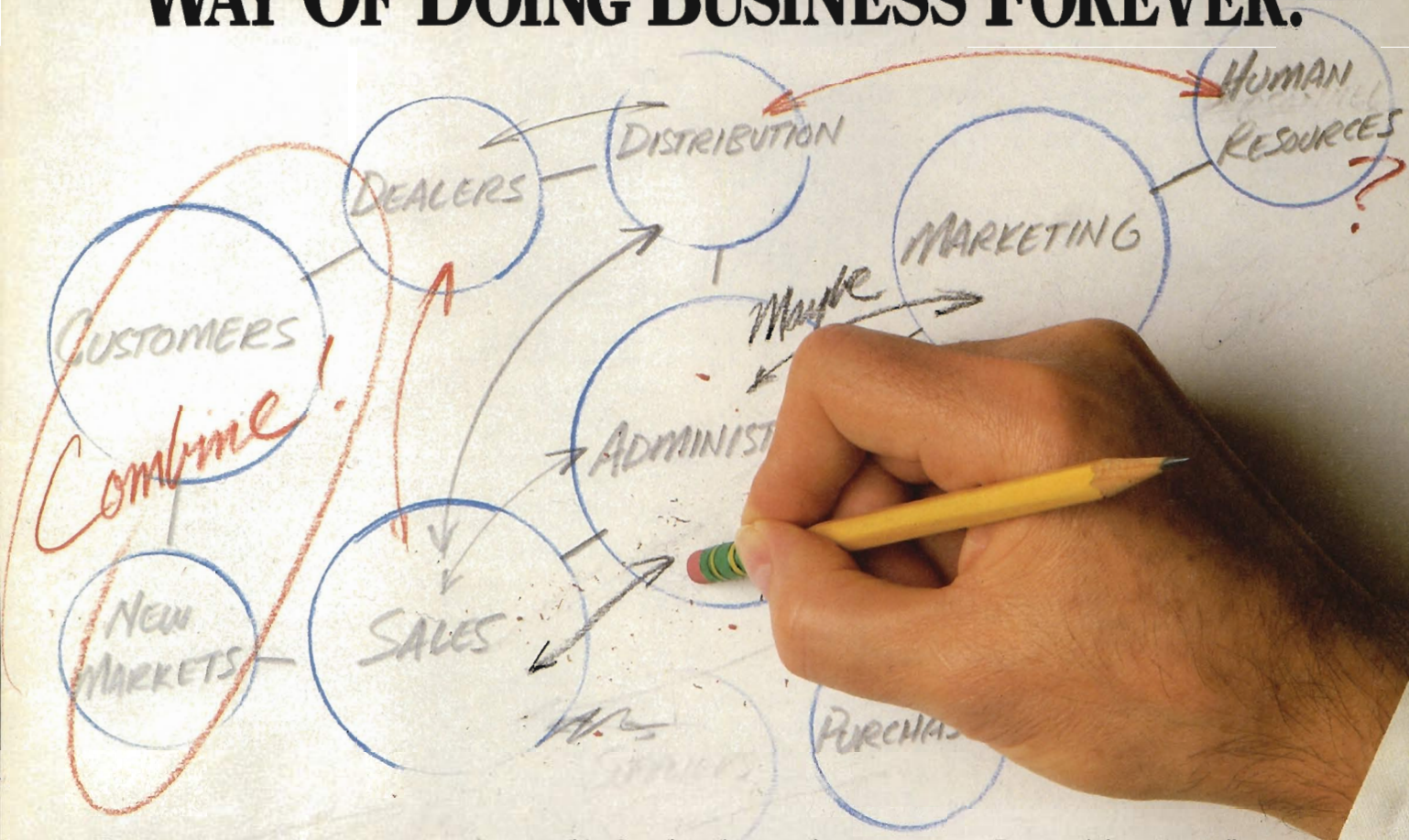
**CUSTOM SOFTWARE DEVELOPMENT**
**VonCom**
**P.O. Box 1237**
**Canton, OH 44708**
**216/477-3179**
**CompuServe 73076,327**

We offer custom software for the TRS-80 Models I/III/100 Portable, Apple II Plus/IIe/IIc, and more. Quality programs developed for the person or company that cannot seem to find that most needed program. Contact us, we will do it!

**SOFTWARE VIA YOUR MODEM**
**Telephone Software Connection Inc.**
**P.O. Box 6548**
**Torrance, CA 90504**
**213/516-9430 via voice**
**213/516-9432 via MODEM (24 hours)**

Over 80 programs for the Apple are available for immediate TELEDELIVERY. (Business, Communications, Education, Games, Graphics, Programming Aids, and Time Management, including many FREE samples). Use your MODEM and call us NOW — you'll be glad you did!

# GIVE US 3 MONTHS, AND WE'LL CHANGE YOUR COMPANY'S WAY OF DOING BUSINESS FOREVER.




**Presenting a superior communications and information delivery system, CompuServe Interchange.**

Finally, there's a way for all those computers out there to really increase your company's productivity.

The breakthrough is Interchange, a superior electronic communications and information delivery system from CompuServe—the premier supplier of business information, electronic mail and network services to major financial institutions, government agencies and FORTUNE 500 companies.

Interchange lets you build and maintain your company's information sources and then disseminate this information to any audience: office staff, sales representatives, customers, distributors, suppliers, purchasing agents—in any combination that is right for your business.

Many corporations and associations in a wide range of industries are already profiting from Interchange and our electronic mail system, InfoPlex®

Borg-Warner Chemicals has increased sales significantly with an Interchange system that (1) supplies technical information, (2) updates changing trade news, and (3) allows customers to run interactive, industry-oriented programs.

Heinz U.S.A. uses CompuServe's electronic mail to communicate sales and promotional information to the company's sales personnel. The speed and accuracy of InfoPlex have resulted in improved customer service and effectiveness.

CompuServe Interchange also allows access to a variety of useful information including stock quotes, the AP newswires, USA TODAY Update, and market research databases.

You can organize and disseminate information, provide electronic mail and much more. And we can help you put it together quickly and efficiently.

And in just 3 months, that can change your company's way of doing business forever.

For more information, call us or send this coupon today.

**CompuServe Interchange**

☐ **Please send me additional information.**
☐ **Please have a CompuServe representative call me.**

Name_____

Title_____

Company_____

Address_____

City_____

State_____ Zip_____

Business Phone_____

**CompuServe®**

CompuServe Interchange
P.O. 20212
5000 Arlington Centre Blvd.
Columbus, Ohio 43220

**800-848-8199**
In Ohio call 614-457-0802

An H&R Block Company

Circle 21 on the Reader Service card or GO EBB.

## Prentice Modem

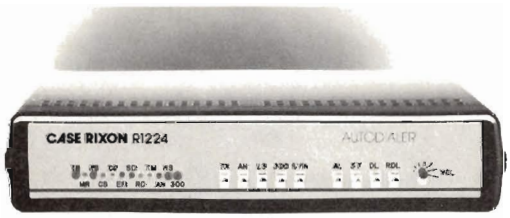
Prentice has introduced the new P-212 ST modem, a $425 unit that provides conversational terminal communications applications.

The modem is compatible with the Bell 212A and the Hayes communications command set. It is full-duplex, uses an RS-232 interface and operates asynchronously at 110-300 and 1200 bps rates.

In addition to auto-dialing and auto-answer capabilities, the modem plays notes and uses LEDs to verify connections, providing both audio and visual communications. The compact, thin-lined package fits neatly under a standard telephone.

For information, contact Prentice Corp., 266 Caspian Dr., P.O. Box 3544, Sunnyvale, CA 94088-3544; 408/734-9810.

Circle 16 on the Reader Service card or GO EBB.




## 2400 bps Modem

A second-generation, full-duplex 2400 bps modem has been introduced by Case Rixon Communications Inc. The R1224 modem enables anyone with 1200 bps capability to economically double the transmission speed.

The unit operates at 2400 bps over two-wire DD or private line and is Bell and Case Rixon 212A and 103 compatible. Both desktop and high-density rack mount configurations are available.

The R1224 provides synchronous and asynchronous operation controlled from the front panel. Features include auto-dialer with tone and pulse dialing, options accessible from rear without opening the box and a busy out option.

For information, contact Case Rixon Communications Inc., 2120 Industrial Pky., Silver Spring, MD 20904-1999; 301/622-2121.

Circle 19 on the Reader Service card or GO EBB.

## Terminal Emulation

Persoft Inc. has developed a new member of its Smarterm series of terminal emulation and communications software packages. Smarterm 220 allows an IBM PC to function as a DEC VT220, supporting A-to-Z and other DEC software packages that require VT220 terminals, as well as EDT and other full-screen editors.

Smarterm 220 can transfer ASCII and binary programs and data files between the IBM PC and a host computer system.

Virtually all features of the VT220 terminal are implemented, including keyboard emulation, English language setup mode, programmable function keys, multinational character sets, selective erase and both seven-bit and eight-bit control modes.

For information, contact Persoft Inc., 2740 Ski Lane, Madison, WI 53713; 608/273-6000.

Circle 17 on the Reader Service card or GO EBB.

## MOD-1 Communications

The MOD-1 from Cardco Inc. is an auto-answer/auto-dial modem that comes with a terminal software package, which includes full uploading and downloading of text and program files. Also included are facilities to store telephone numbers and security/access codes that can be called up by name or encrypted security access.

The program allows both online printing with XON/XOFF type systems as well as providing a 30K buffer for capturing incoming information and storing it on disk. All standard protocols are supported, including 0-300 baud, multiple stop bits and full/half duplex operation.

For information, contact Cardco Inc., 300 S. Topeka, Wichita, KS 67202.

Circle 20 on the Reader Service card or GO EBB.

## Spreadsheet Program

Lucid is a plug-in ROM spreadsheet program for the TRS-80 Model 100 from Portable Computer Support Group Inc.

Lucid's features include multiple sheets, cut-and-paste and a high calculation speed. The user has instant access to multiple data files, without worry of losing anything.

In addition to being a 254 by 126 spreadsheet, Lucid is a program generator. A customized program can easily be created — complete with "if/then" decision points — without any prior programming knowledge.

Lucid retails for $145.95. For information, contact Portable Computer Support Group Inc., 11035 Harry Hines Blvd. No. 207, Dallas, TX 75229; 214/351-0564.

Circle 18 on the Reader Service card or GO EBB.

## 2400-Baud Modem

CTS Datacomm has introduced the 2424AD as an addition to its Companion Modem Series.

This 2400-baud, auto-dialer, two-wire, full-duplex modem provides synchronous or asynchronous operation at 2400, 1200 or 300 bps. Automatic dialing is possible with memory storage of up to 10 telephone numbers. Adaptive dialing, line status detection and RJ-11C and RS-232C interfacing are other features.

Accompanying Mite communications software is available with the new companion unit, which sells for $795.

For information, contact CTS Datacomm, 6900 Shady Oak Rd., Eden Prairie, MN 55344; 800/328-6104.

Circle 21 on the Reader Service card or GO EBB.

## Communications Package

The Teleterm-EM asynchronous communications package from Telexpress Inc. offers several new features for more microcomputers.

In addition to emulating many terminal types, the program features error-free disk-to-disk file transfer through Teleterm's own error-free protocol, as well as XMODEM protocol. Files may be uploaded or downloaded on any asynchronous system, including CompuServe.

Other features include an unattended operation mode that permits automatic dial and log-on to another system, transfer of files and an integral text editor that functions in both online and offline modes.

Teleterm-EM retails for $195 for the IBM PC, PC-XT, PC-AT and compatibles and for most Tandy systems. The version for the Tandy Models II, 12 and 16 sells for $225, and a multi-user program for Unix/Xenix systems retails for $395.

For information, contact Telexpress Inc., P.O. Box 217, Willingboro, NJ 08046; 609/877-4900.

Circle 22 on the Reader Service card or GO EBB.

## Data Conversion

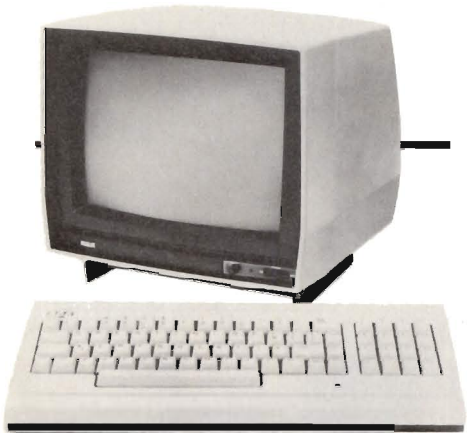
DeskTop Software Corp. has introduced 1stport, a communication and data conversion package for the Apple Macintosh.

1stport allows the Macintosh to function as an ASCII terminal for communicating with other micros, mainframe computers and public databases. Both ASCII and binary data may be sent or received, making it possible to transfer data files and programs.

Data transferred to the Macintosh using 1stport may be converted into several different data formats for easy use with 1stbase and a variety of other Macintosh programs. Options provided are 1stbase file, DIF file, SYLK file, fixed record-length text file and the clipboard.

1stport retails for $95 and is available for the 128K or 512K Macintosh. For information, contact Desktop Software Corp., CN-5287, Princeton, NJ 08540; 609/924-7111.

Circle 25 on the Reader Service card or GO EBB.



## Built-In Modem

RCA Data Communications Products has introduced the All-Purpose Terminal Model VP5801 that features a 1200-baud built-in modem.

The new terminal incorporates such features as menu-controlled operation, programmable "personality" to match specific communication requirements for each database, tone or pulse autodialing of up to 26 stored phone numbers and automatic log-on.

A single keypress can dial a stored number, send the log-on sequence to the host computer and return terminal control to the user. Password protection can prevent unauthorized access to designated numbers. The system can also be used as an auto-dialer for voice communications.

The terminal is offered with or without an optional 12-inch diagonal, nonglare, green phosphor display monitor.

For information, contact RCA Data Communications Products, P.O. Box 3140, Lancaster, PA 17604-3140; 717/295-6874.

Circle 23 on the Reader Service card or GO EBB.

**Need to Keep Up With the Computer and Information Industries?**

We publish all the computer industry news every day in the *Electronic Edition* of *Online Today*. GO OLT from any prompt in CompuServe and choose "Monitor Daily News" from the main menu.

Online TODAY
ELECTRONIC EDITION

## Telescape Communications

Telescape from Mainstay is a futuristic communications software package with graphics for the Apple Macintosh computer.

The program features an integrated communications directory, intelligent macros, universal terminal emulation, error-checking file transfer and an unattended message service.

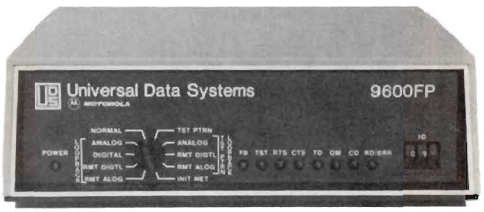
Telescape's most innovative feature is its graphics language and display capability. Messages are no longer limited to simple text; rather, character-coded messages are used to create various text sizes, fonts and graphic shapes. Even simple animation can be accomplished.

Graphic messages can be sent via electronic mail or placed on any information utility, including CompuServe.

All popular modems are supported. Telescape retails for $125.

For information, contact Mainstay, 28611B Canwood St., Agoura Hills, CA 91301; 818/991-6540.

Circle 24 on the Reader Service card or GO EBB.




## Fast Poll Modem

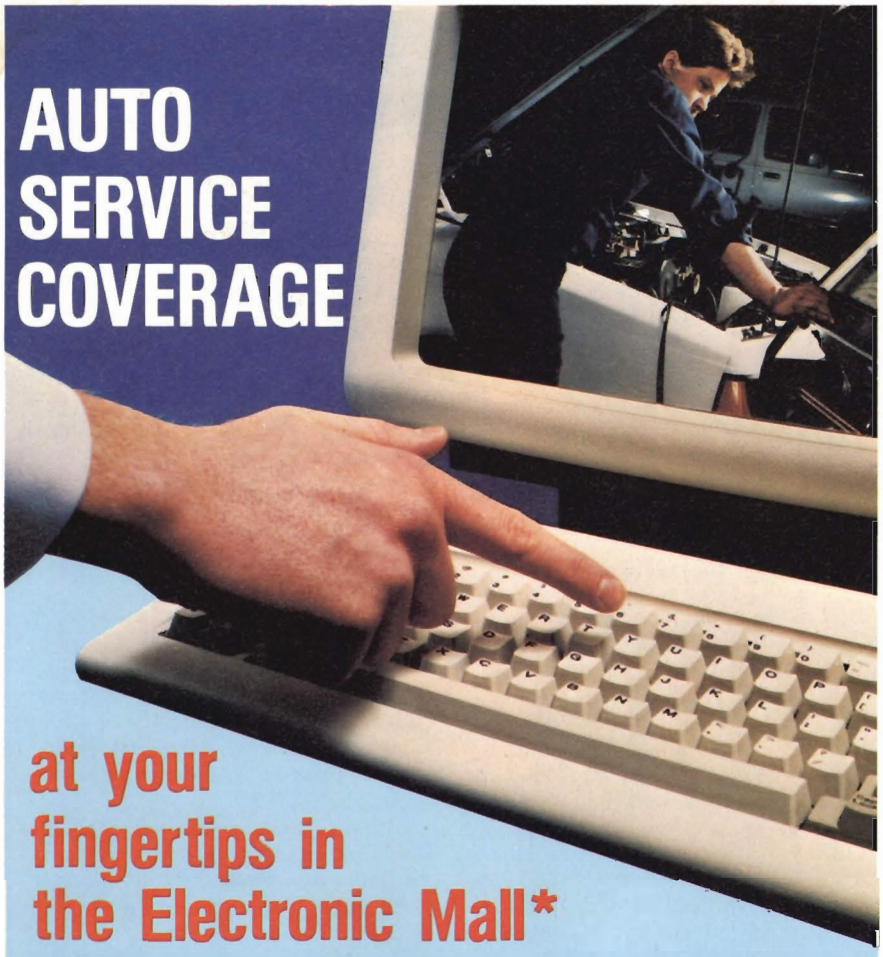
Universal Data Systems has introduced the Model 9600 FP data modem, a fast-training 9600 bps modem designed for use on multipoint networks.

The modem's design combines LSI and microprocessor technologies, which result in high reliability and low power consumption.

The 9600 FP features a 10-position rotary switch so the user can select the talk/data mode, the initialization mode or any of the eight test modes.

The unit sells for $1,995. For information, contact Universal Data Systems, 5000 Bradford Dr., Huntsville, AL 35805-1953; 205/837-8100.

Circle 27 on the Reader Service card or GO EBB.




at your fingertips in the Electronic Mall*

**AT LAST...OUR USER FRIENDLY AUTO SERVICE CONTRACT**

Where else can you get a service contract covering many of those extras not covered by conventional dealer contracts, yet **priced up to 50% less!** Our "User Friendly" service even provides coverage for towing, car rental and lodging/travel expenses while covered components are being repaired.

***To make this offer even friendlier, we're giving $50.00 off every new service contract, now thru May 31, 1985. If you have purchased a new car within the past nine months which has less than 9,000 miles — or plan to purchase one soon — you qualify!**

To discover more, simply type GO AC from any prompt in the Consumer Information Service of CompuServe.

- 5 year/Unlimited Mileage and 6-Year/72,000 Mile Service Contracts
- Includes Allowances For Towing, Car Rental and Lodging/Travel While Covered Components are Being Repaired
- Priced up to 50% Less Than Car Dealer Programs
- Coverage Available for New Cars Up To Nine Months Old with less than 9,000 miles
- Save $50.00 by Ordering Before May 31, 1985 Thru the **Electronic Mall**

**LANDMARK CONTRACTS, INC.**
441 Wolf Ledges Pkway
Suite 100
Akron, Ohio 44311
Phone: (216) 434-6651
**EASYPLEX 70007,1530**

Circle 32 on the Reader Service card or GO EBB.


## Solving Problems

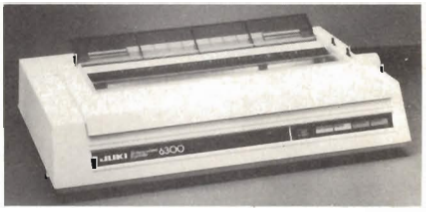
Formula/One from Alloy Computer Products is a problem-solving software package that allows engineers, scientists, students and business professionals to calculate complex mathematical equations without computer programming experience.

The program has been developed for the IBM PC, PC-XT and compatibles with at least 256K RAM and takes the place of programmable calculators and customized computer software.

Utilizing such features as "context sensitive" help and DOS-like commands, users can automatically set up problems, vary assumptions, solve equations, plot graphs and compute unknown variables in complex formulas and models.

Formula/One sells for $395. For information, contact Alloy Computer Products Inc., 100 Pennsylvania Ave., Framingham, MA 01701; 617/875-6100.

Circle 30 on the Reader Service card or GO EBB.



## Daisywheel Printer

The Juki 6300 Daisywheel Printer, a 40-character-per-second, letter-quality printer that sells for $995, has been introduced by Juki Office Machine Corp.

The unit is an ideal printer for home and small-business use. It uses a 96-character daisywheel and offers 10/12/15 pitch and proportional spacing. There is a 3K buffer memory, which is expandable to 15K.

Print features include graphics capability, superscript, subscript, underlining, boldface and shadow printing.

Diablo daisywheels and ribbons are used. The printer can be equipped with either a standard Centronics compatible parallel interface or a standard RS-232C serial interface.

For information, contact Juki Office Machine Corp., 299 Market St., Saddlebrook, NJ 07662; 201/368-3666.

Circle 34 on the Reader Service card or GO EBB.

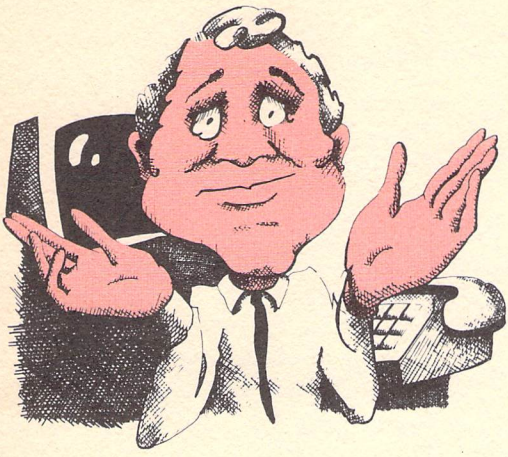
## Executive Filer

Executive Filer from Paperback Software International is a text database and filing program that can be used alone or in conjunction with Executive Writer.

By maintaining a large library of individual text items, Executive Filer can be used in such diverse applications as filing correspondence electronically. In conjunction with Executive Writer, the program's text database can be used to automate document creation.

Executive Filer retails for $49.95. For information, contact Paperback Software International, 2612 Eighth St., Berkeley, CA 94710; 415/644-2116.

Circle 33 on the Reader Service card or GO EBB.



## Consider Yourself A Rational Information Age Consumer?

Then a subscription to Online Today is an investment value you'll thank yourself for twelve times over the next year.

Online Today's editorial agenda includes a dozen months of indepth articles and issue-oriented features, detailed software and book reviews, and timely news. Don't miss any of the magazine's coverage of the world of computer communication and information retrieval.

If you're reading Online Today as a pass-a-long copy. Or reading Online Today only after you get your issue back from someone without a copy. Or reading Online Today and thinking that you know someone who ought to read it too. Then it's only rational to consider the logic of subscribing.

Take it upon yourself as an Online Today have, to put the magazine in the hands of a have-not. Do your part. Return the attached card today. And let Online Today's quite affordable subscription rates bring out the rational consumer in you.

*Don't rationalize. This is a limited time offer. Return the attached card today.*

# ADVERTISE in Online Today's Shopper's Guide.

For only $85, a listing will tell Online Today's growing readership what is available to improve efficiency, lower costs and increase the enjoyment of personal computing.

Listings are classified under four categories: Software, Services, Consultants and Retailers. As each listing is received, it will be published in the next available issue of Online Today.

Each listing costs $85, and covers the general listing information as well as a 40-word description of the product or service. Additional words are $15 for up to 15 words. Listings that run for three or more consecutive issues earn a 10 percent discount. Payment MUST be received with listing information. The following is a guide to the type of information to include in the general listing information section.

**SOFTWARE:** Product name; author and/or company's name; mailing address; telephone number; CompuServe User ID; up to 40 words describing your services.

**SERVICES:** Type of service; company name; mailing address; telephone number; CompuServe User ID; up to 40 words describing your services.

**CONSULTANTS:** Company and individual contact name; mailing address; telephone number; CompuServe User ID; up to 40 words describing your service.

**RETAILERS:** Company name; individual contact name; mailing address; telephone number; CompuServe User ID; up to 40 words describing your products and services.

You may use the attached card when ordering your ad. Mail your information with payment to Online Today Shopper's Guide, P.O. Box 639, Columbus, Ohio 43216-0639.

# SUBSCRIBE for one year . . . Just $18.00!

☐ Yes! Please send me a full year of Online Today Magazine (12 issues) at the special money-saving rate of $18.00. I understand this is a full 60% off the newsstand rate! Canadian subscribers add $12.00 per subscription.

Name _____

Company _____

Address _____

City _____ State _____ Zip _____

**This offer is for non-CompuServe* Subscribers only!**
*CompuServe subscribers receive a free introductory subscription when they sign up for CompuServe.

**Payment or bank card information must accompany subscription.**

Type of payment (check one) ☐ payment enclosed ☐ MasterCard ☐ VISA

☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ Bank card number

☐☐☐☐ MasterCard Interbank#

☐☐/☐☐ Expiration Date

_____ _____

Signature Date

**Mail to: Online Today Magazine, P.O. Box 639, Columbus, Ohio 43216-0639**

Invalid after Sept. 1, 1985

# LISTING ORDER for Online Today's Shopper's Guide

Check one ☐ Software ☐ Services ☐ Consultant ☐ Retailer ☐ Other _____ Specify

Name _____

Business or Author Name _____

Street _____

City,State,Zip _____ _____ _____

Telephone number ( ) _____ CompuServe _____

Store hours (retail only) _____

Copy _____

_____

_____

_____

**Please enclose payment or credit card information with your order.** Basic listings are $85 for up to 40 words. Additional words are $15 per each additional 15 words or fraction. Listings for three or more consecutive issues earn a 10% discount and may be subtracted from your total payment.

Invalid after Sept. 1, 1985

Type of payment (check one) ☐ payment enclosed ☐ MasterCard ☐ VISA

☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ Bank card number

☐☐☐☐ MasterCard Interbank#

☐☐/☐☐ Expiration Date

Basic 40 word listing at $85 + $ ____ for additional words $ _____

Ad frequency ____ =$____ minus 10% for 3 or more insertions $ _____

Total amount enclosed $ _____

_____ _____

Signature Date

# Reader Inquiry Service

For free information on products or services in this issue of Online Today, fill in your name, address and zip code and answer questions A through E. Then, circle the number that corresponds to the number of the ad or article in which you are interested.

CompuServe Consumer Information Service subscribers can request information electronically by entering GO EBB at any prompt.

(Please print or type)

Name _____

Address _____

City _____

State _____ Zip _____

**A. Occupation**
1. ☐ Executive/managerial
2. ☐ Computer professional/technician
3. ☐ Other professional
4. ☐ Teacher/instructor
5. ☐ Sales
6. ☐ Skilled labor
7. ☐ Student
8. ☐ Other (specify) _____

**B. Interest in computer is for:**
1. ☐ Business 2. ☐ Personal 3. ☐ Both

**C. Brand of personal computer interested in:**
1. ☐ IBM 4. ☐ Apple 6. ☐ Hewlett-Packard
2. ☐ DEC 5. ☐ Radio Shack 7. ☐ Commodore
3. ☐ Atari 8. ☐ Other (Specify) _____

**D. I am interested in the following products:**
1. ☐ Business Information Services
2. ☐ Consumer Information Services
3. ☐ Electronic Mail/conferencing
4. ☐ Communications Software
5. ☐ Modems
6. ☐ Word processors
7. ☐ Database management software
8. ☐ Integrated Software
9. ☐ Local Area Networks
10. ☐ Computer Books/Publications
11. ☐ Peripherals (specify) _____
12. ☐ Other (specify) _____

**E. I plan to spend the following dollar amount on computer products within the next year:**
1. ☐ $1-$999
2. ☐ $1,000-$4,999
3. ☐ $5,000-$9,999
4. ☐ $10,000-$19,999
5. ☐ $20,000-$49,999
6. ☐ $50,000-$99,999
7. ☐ $100,000-or more

Circle inquiry number from this issue only.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 11 | 21 | 31 | 41 | 51 | 61 | 71 | 81 | 91 | 101 | 111 |
| 2 | 12 | 22 | 32 | 42 | 52 | 62 | 72 | 82 | 92 | 102 | 112 |
| 3 | 13 | 23 | 33 | 43 | 53 | 63 | 73 | 83 | 93 | 103 | 113 |
| 4 | 14 | 24 | 34 | 44 | 54 | 64 | 74 | 84 | 94 | 104 | 114 |
| 5 | 15 | 25 | 35 | 45 | 55 | 65 | 75 | 85 | 95 | 105 | 115 |
| 6 | 16 | 26 | 36 | 46 | 56 | 66 | 76 | 86 | 96 | 106 | 116 |
| 7 | 17 | 27 | 37 | 47 | 57 | 67 | 77 | 87 | 97 | 107 | 117 |
| 8 | 18 | 28 | 38 | 48 | 58 | 68 | 78 | 88 | 98 | 108 | 118 |
| 9 | 19 | 29 | 39 | 49 | 59 | 69 | 79 | 89 | 99 | 109 | 119 |
| 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 |

June 1985, not valid after Sept. 1, 1985

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

## BUSINESS REPLY CARD

FIRST CLASS PERMIT NO. 1046 COLUMBUS, OH

POSTAGE WILL BE PAID BY ADDRESSEE

Online TODAY

P.O. Box 639
Columbus, Ohio 43216-0639

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY CARD

FIRST CLASS PERMIT NO. 1046 COLUMBUS, OH

POSTAGE WILL BE PAID BY ADDRESSEE

Online TODAY

P.O. Box 639
Columbus, Ohio 43216-0639

PLACE
22¢ STAMP
HERE

Online TODAY

**Reader Service Management Dept.**
**P.O. Box 376**
**Dalton, MA 01227-0376**

# NEW!! International Fares

## Now You Can Choose the Best Schedules and the Lowest Air Fares WORLDWIDE

### On CompuServe with the OAG ELECTRONIC EDITION

Now international fares are included in the OAG ELECTRONIC EDITION for direct flight services between major North American cities and destinations throughout the world!!

You can easily access international fares for direct flights from North America to Europe, Australia, Asia, the Far East, Central America and South America. International fares are also displayed for direct flights between cities within South America and between cities within Central America.

You'll see how easy it is to plan air travel and save money when you use the OAG ELECTRONIC EDITION.

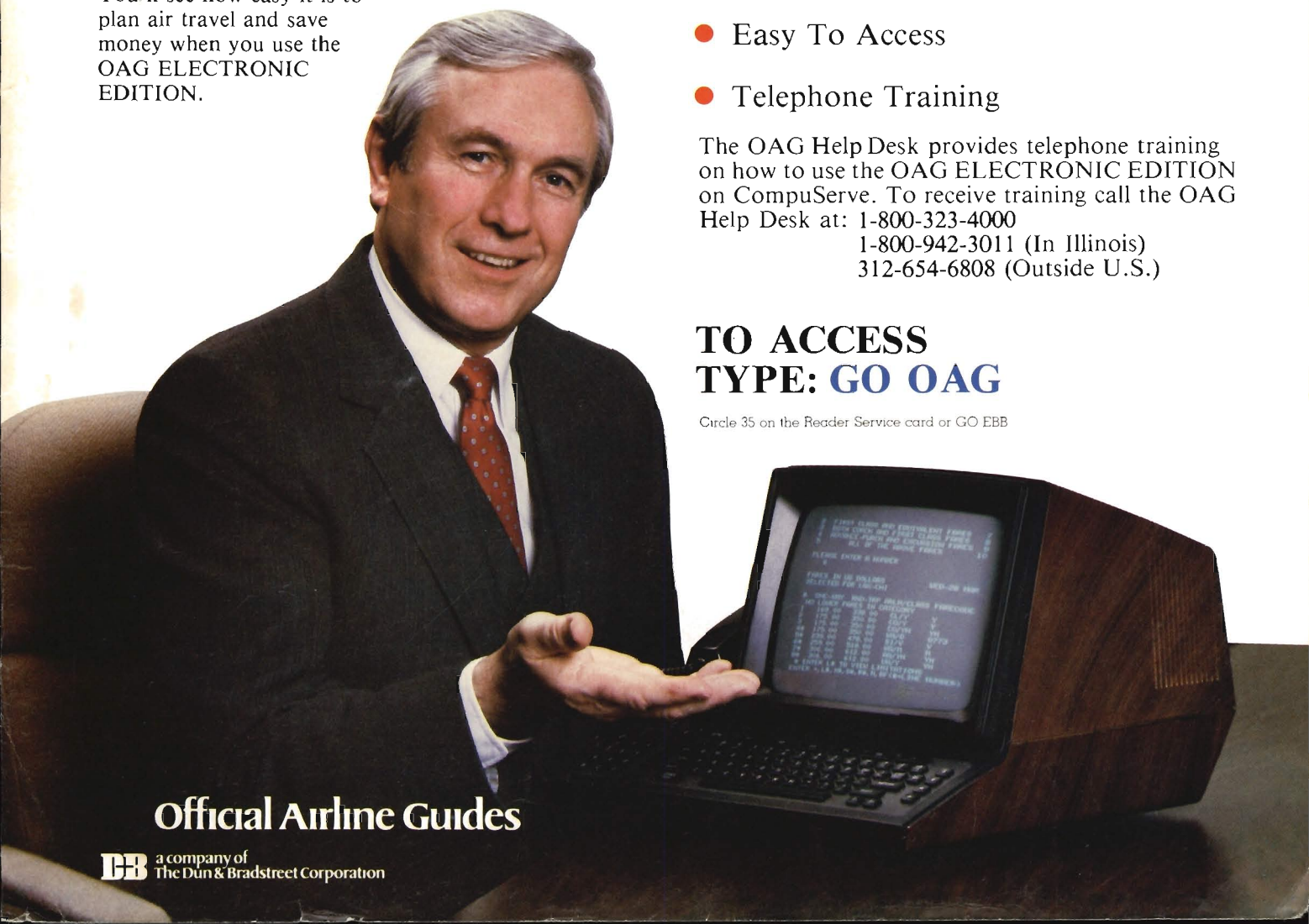
**The OAG ELECTRONIC EDITION**

- Complete Unbiased and Current Information
- Save Time and Have More Control
- Save Money
- Easy To Use
- Easy To Access
- Telephone Training

The OAG Help Desk provides telephone training on how to use the OAG ELECTRONIC EDITION on CompuServe. To receive training call the OAG Help Desk at: 1-800-323-4000
1-800-942-3011 (In Illinois)
312-654-6808 (Outside U.S.)

## TO ACCESS TYPE: GO OAG

Circle 35 on the Reader Service card or GO EBB



Official Airline Guides

a company of The Dun & Bradstreet Corporation

# FASTALK

## The serious users' modem for personal computer communications

FasTalk™ modems put you on line, at once, with menu-driven ease. Packaged with straightforward instruction manuals and custom-written SignOn™ software (for IBM PC® and compatibles), FastTalk exchanges data with terminals and other computers rapidly and reliably.

FasTalk connects the serious user with information services like CompuServe,® Dow Jones News/Retrieval® and THE SOURCE.℠ It's compatible with Hayes Smartcom II™ and with most of the popular Hayes compatible software like Lotus Symphony® and Ashton-Tate Framework.™

FasTalk is equipped with a TALK-DATA switch that lets you and your computer talk on the same line. A speaker allows you to monitor line status and and listen for voice interruption of data transmission, hands free.

And, FasTalk is priced well within reach of the serious, value-conscious user. Find out how FasTalk can have you telecomputing... fast: **Call 800/633-2252, extension 365.**

Universal Data Systems,
5000 Bradford Drive,
Huntsville, AL 35805.

FasTalk and SignOn are trademarks of Universal Data Systems. CompuServe Information Service is a registered trademark of CompuServe Inc., an H&R Block Company./Dow Jones News/Retrieval is a registered trademark of Dow Jones & Company, Inc./THE SOURCE is a service mark of Source Telecomputing Corporation, a subsidiary of The Reader's Digest Association, Inc./IBM is a registered trademark of International Business Machines Corporation.

FASTALK™

UNIVERSAL DATA SYSTEMS

MOTOROLA, INC.

Circle 36 on the Reader Service card or GO EBB.